IGEM Grant Report

☐ Progress (due Jan. 1) ☑ Annual (due Jul. 31) ☐ (due Aug. 31)

IGEM Grant #23-001 Principal Investigator – Prof. R. A. Borrelli

Submission Date – 2025.07.31 Primary Institution – University of Idaho

Library of Reconfigurable Immersive Attack and Defend Scenarios for Cybersecurity Research and Workforce Development

Section 1: Summary of project accomplishments and upcoming plans.

- Increased enrollment at the Idaho Falls Center for Higher Education –
  (a) Employed three graduate students.
  (b) All first generation college students and/or underrepresented.
- Updated courses with hands-on, realistic activities. Drastically increased student participation to Cybersecurity courses from 6 in 2023 to 31 in 2025.
- Extended RADICL with additional power to support containerized network elements; e.g., routers, switches, vulnerable servers, and malicious hosts.
- Purchased equipment and extended the RADICL lab with Hardware Security capabilities.
  1. Hardware Security is a recognized as a National priority and is supported by the CHIPS act.
  2. The lab comprises of PLCs, IoT, FPGAs, oscilloscopes and sensors.
- Developed a Hardware Security course for the first time by an Idaho University.
  1. Capitalized equipment purchased by the project to support hands-on experiments on topics like side channel analysis, PUFs, hardware trojans, trusted execution platforms among others.
  2. Has remote connectivity and remote access capabilities thus, offers Hardware Security lectures of Idaho Falls, Moscow and CdA.
- Developed a Hardware Security course for the first time by an Idaho University.
- Purchased high-performance servers and integrated these computational resources to the Falcon HPC.
  1. Falcon, can now run multi-headed Hydra nodes i.e., VMs with optimized resource profile to support small or larger cybersecurity experiments. Can simultaneously be used by more than 200 students for educational scenarios that rely on the AE^{3}GIS platform.
  2. Hydra can be accessed by Idaho students (of all Universities) with absolute priority.
  3. It is isolated providing a safe and reconfigurable infrastructure for security experiments.
  4. Is equipped with multiple GPUs thus enabling demanding AI-related research experimentation.
- Developed the Agile Emulated Educational Environment for Guided Industrial Security (AE^{3}GIS) platform.

1. A platform that can host network security experiments.
2. The platform is fully open source (no external licenses).
3. It is comprised of virtual components that correspond to nodes often seen IT/OT networks (including PLCs and servers) and it is focused on realism.
4. It is designed to be lightweight; it can be downloaded and hosted on servers of colleges or industries.
5. If not downloaded, it can be accessed remotely by other educational institutions of Idaho. Demos to ISU, BSU, BYUI, CEI and NIC have already been arranged starting September 2025.
6. Implemented three scenarios but enables instructors to implement custom scenarios.
7. Will submit paper by Aug 2025 describing the capabilities and advantages of the platform.

- Implemented three alternative scenarios demonstrating different types of adversarial activity under the UI Adversary-As-A-Service (AAS) methodology
  (a) Ransomware attack (Wannacry). Students learn to detect ransomware activity and analyze encryption behavior and propagation patterns.
  (b) Distributed Denial of Service attack (Mirai). Students learn to analyze network traffic for DDoS patterns and implement defensive measures such as firewalls and load balancers.
  (c) Data Exfiltration via Covert Channels (Heartbleed). Students recognize covert data exfiltration techniques and implement monitoring and alerting for anomalous traffic.
- Received NIST Community Project funding to expand the laboratory capabilities initially foreseen in this (HERC-funded grant).
  1. Combine the Hydra running AE^{3}GIS which offers a scalable virtual environment with physical labs residing at ISU. We will create a virtual/physical hybrid, distributed testbed for comprehensive cybersecurity research and education.
  2. Currently hiring postdoctorate researcher to run the power systems laboratory.
  3. This project capitalizes on capacity created through the IGEM funding.
- We formed a Center based at Idaho Falls namely the Highly Interdisciplinary Research Institute for Secure Critical Systems (HI-RISCS).
  1. The center is supported by more than 20 faculty of UI and includes faculty of ISU and BSU.
  2. HI-RISCS aims to create a formal partnership in eastern Idaho to encourage access to cyber-physical systems research and cybersecurity training using infrastructure and platforms.
  3. Aims to increase collaboration between Idaho's educational institutes and industry towards securing large funding through projects related to critical infrastructure security and resilience.
  4. Secure funding for more modern and larger facilities in Idaho Falls Center and Eastern Idaho educational institutes.
- Developed a Cyber Shooting Gallery, i.e., a set virtual machines (VMs) and/or containers that represent critical network components including both IT and OT layers of industrial control systems.

  - Each component contains common, vulnerable, or misconfigured software stacks.
  - Can be used in research or educational scenarios to attack, defend, and reconfigure.
  - Are open source and reusable.

  1. PLC - Emulates a PLC responding to Modbus; Relies on OpenPLC; Vulnerability: No authentication, no encryption (Modbus/TCP), write access to coils/registers.
  2. HMI/SCADA Station - Visual interface for industrial process; Relies on OpenSCADA, ScadaBR; Hardcoded/default credentials, bad TLS certificates, old Java libraries.
  3. Engineering Workstation - Developer station for PLC programming; openPLC Editor
  4. Historian Server - Collects and visualizes telemetry; Relies on InfluxDB and Grafana; Vulnerability: Open database ports, no auth for dashboards, weak password defaults.
  5. ICS File Server - File distribution in OT network; Relies on older versions of Samba; Vulnerability: Older SMB Server that allows the SambaCry attack.
  6. IoT Device - Acts as an embedded IoT camera/device; Relies on BusyBox; Vulnerability: Default credentials (admin:admin), open telnet.
  7. Corporate Workstation - Supports day-to-day operations for staff; Relies on Ubuntu Desktop and LibreOffice; Vulnerability: Entry point for phishing/lateral movement via LibreOffice macro execution.
  8. Firewall / Router - Provides protection from external traffic and segments IT/OT networks; Relies on OPNsense; Vulnerability: Overly permissive rules.
  9. Monitoring/SIEM Node - Logs and alerts on suspicious behavior; Relies on Wazuh, Suricata; Vulnerability: Weak log correlation rules.

- Development began of the laboratory focused on power system communication and control systems. We have expanded our relationships with industry partners, including Schweitzer Engineering Laboratories, Westinghouse (now WESCO), Datacast Technologies, and Edge Velocity to begin integrating their technologies into the laboratory. This includes significant donations from the vendors to complement Idaho's investments through the HERC IGEM program. We have also used matching funds provided by the university to procure the real-time digital grid simulator and have begun initializing it. UI has one Ph.D. student ready to begin work on the simulator. We soon will be in discussion with Schweitzer Engineering Laboratories for a change of PI to continue a $330K grant focused on power systems communication and control systems.
- ISU procured an advance manufacturing trainer with PLC, HMI, and a robotic arm. The trainer allows for realistic teaching and research related to industrial cybersecurity.
- Student researchers began design of a hands-on industrial networking security proficiency evaluation. The researchers developed a scenario, network diagram, software list, task list, and scoring rubric. This exam will be used as an assessment instrument for students in the ISU industrial cybersecurity program.
- ISU, INL, DOE and International Society of Automation published a 125-page document 'Curricular Guidance: Industrial Cybersecurity Knowledge' describing 559 terms that form a foundational body of knowledge for an security professional in April 2024. The document is helpful for students, instructors, administrators and working professionals. A paper describing the effort to create the document won best paper at the 28th Colloquium for Information Systems Security

Education.

- Accepted pre-proposal DOE EPSCoR with ISU, and BSU. The project capitalizes on the infrastructure to support industrial metaverse educational scenarios.

ISU is working with secondary teachers to deploy curricular materials into high schools. Additionally, the industrial cybersecurity courseware will be moved to an online delivery format. Other plans include proposing a graduate certificate in industrial cybersecurity to the Idaho State Board of Education, deploying motor control trainers in the laboratory, deploying the industrial networking security proficiency assessment, and designing hands-on control systems fundamentals proficiency exam.

Publications

(1) McBride, S. (2024). "Curricular Guidance: Industrial Cybersecurity Knowledge." 125 pp. Joint publication of: United States Department of Energy, International Society of Automation Global Cybersecurity Alliance, Idaho State University, Idaho National Laboratory. isagca.org/hubfs/2023 ISA Website Redesigns/ISAGCA/PDFs/Industrial Cybersecurity Knowledge FINAL.pdf

(2) Vedros K., Vakanski A., Kolias C., Forte D."From Capture-Recapture to No Recapture: Efficient SCAD Even After Software Updates", Annual Computer Security Applications Conference (ACSAC) 2025, Submitted.

(3) Tollan B., Kolias, C., Borrelli R.A. "AE^{3}GIS – Agile Emulated Educational Environment for Guided Industrial Security", Future Internet, To Be Submitted.

(4) Tollan B., Centofante C., Kolias, C., Borrelli R.A. "Adversary in the Loop: Breach and Attack Simulation for Assessing the Defensibility of ICS Networks", Energies, To Be Submitted.

Proposals submitted

(1) Sean McBride (PI) - Idaho State University, Dakota Roberson (co-PI), R. A. Borrelli (co-PI), Constantinos Kolias (co-PI) - University of Idaho. Industrial Cyber Security Research and Training Laboratory. National Institute of Standards and Technology. $2,875,000. 2024.08.01 - 2026.07.31. [*noncompetitive*]

(2) H. Koh (PI), Arezoo Zare (co-PI) – Washington State University, R. A. Borrelli (co-PI) – University of Idaho, Marcos Fernandez Tous (co-PI) – University of North Dakota, Palash Kumar Bhowmik (co-PI) – Idaho National Laboratory. Digital Twins for Small Nuclear Reactors. Department of Energy University Nuclear Research Infrastructure Revitalization. $6,000,000. 2025.08.01 - 2028.07.31.

(3) R. A. Borrelli (PI) – University of Idaho. Nuclear Power Plant Cyber-Risk Assessment with Real-Time Reactor Operations. Nuclear Regulatory Commission. $332,985. 2025.08.01 - 2028.07.31.

(4) Lynn C. Pope (PI), Palash Kumar Bhowmik (co-PI), Justin Welch (co-PI) - Idaho National Laboratory, R. A. Borrelli (University Partner as Independent Consultant) - University of Idaho, Manimaran Govindarasu (University Partner as Independent Consultant) - Iowa State University, Timothy Adam Huddleston (Technical Advisor), Piyush Sabharwall (Technical Advisor) - Idaho National Laboratory. Zero Trust Tools Demonstration Test Bed for Power and Energy Control Systems. Department of Defense Environmental Security Technology Certification Program. 2025.10.01 - 2027.09.30.

(5) Dakota Roberson (PI) - University of Idaho. Foundational Theories for Inherently Secure Digital Systems. Schweitzer Engineering Laboratories. $334,157. 2023.09.01 - 2025.09.01. [*Change of PI in process*]

Section 2: High-level summary of budget expenditures for the period just completed.

- Funding of $700,000 for FY25 is split between UI and ISU co-PIs to manage ($300,000 subaward to ISU, $400,000 allocated to UI.)
- For the carryover on FY24 between UI and ISU, all funds were spent. For FY25, expenditures are $115,274. However, a no-cost extension has been granted to 2025.09.30.
- Students

    1. Henok Tadelle (M.S.) - Graduated, first position at Dell.
    2. Tollan Berhanu (M.S.)
    3. Chad Centofante (M.S.)

Facilities, materials, and equipment under this grant specifically fall under one of several categories. In order to support the backbone of our cyberspace environment, we have created a private cloud environment that will support the reconfigurable virtual spaces for cybersecurity and energy research and training. We have now doubled the computing capacity of our private cloud environment from the previous year's acquisitions. We have also expanded our networking capacity and are continuing the work in progress to connect all of the associated lab spaces in the Center for Higher Education building in Idaho Falls. Combined, the current spending to date on our private cloud computing environment is over $300,000.

The balance of our expenditures to date are on budget and in accordance with the HERC IGEM requirements and the University of Idaho Office of Sponsored Programs.

Idaho State University

- Procured and installed and commissioned all nine modules of the advanced manufacturing training station at the Idaho Falls campus.
- Student workers designed a red vs. blue attack defend activity involving Raspberry pi Platform. Platform has been used when giving potential cybersecurity students a tour of ISU's cybersecurity programs. This low-cost kit and activity can be used in middle and high schools as an interest ignition exercise.
- Student workers began designing a hands-on industrial network security proficiency assessment. This included an initial description of the test objectives, creation of optimal network diagram, description of which equipment was to be virtual vs. physical, identification of software to be used on each piece of equipment. This process was informed by input from an industrial cybersecurity network segmentation subject matter expert with experience at Phillips 66, Idaho National Laboratory, and the Transportation Security Agency.
- Faculty and student workers designed a motor control addition for the PLC programming stations purchased by this project in the 2022-23 window. They finalized the proof of concept, procured parts and began assembling the finalized version. This work will be completed as part of a follow-up project.
- Faculty and student workers designed a hotwheels cyber-physical systems demonstration kit to be used as a recruitment tool, and as a project in an Intro to Cyber-physical Systems class.

University of Idaho

The major equipment acquisition for this first year of grant funding was for the RTDS Technologies real-time data simulator for electric grid operations research. This purchase was made possible by

$76,000 from this grant matched by funds from other sources. Additional equipment made available through partnership with Schweitzer Engineering Labs has helped enhance the complexity and realism of simulations for cybersecurity research. With the departure of Prof. Roberson, we are endeavoring to continue a $330K grant with Schweitzer with Prof. Borrelli to be the new PI. As part of this, the Western Services Corporation (WSC) nuclear reactor simulator is in process of integration into this system. WSC is used for a wide range of power systems and cybersecurity research. This integration will enhance capabilities in these fields considerably. A Ph.D. student will begin work on the RTDS to design nuclear integrated energy systems with Prof. Borrelli as advisor, also due to the departure of Prof. Roberson.

Section 3: Demonstration of economic development/impact.

During the prior funding period, the University of Idaho College of Engineering created the Level II Intermountain Center for the Cybersecurity of Critical Infrastructure (IC3I) with Prof. Haney as director. With his departure, Profs. Kolias with Prof. Borrelli has strategically revitalized this entity into the High-Impact Center for Interdisciplinary Research in Secure Critical Systems to to leverage the substantial resources and collaborative opportunities afforded by the new Super Agreement with Idaho National Laboratory. The new Center, is intended to serve as a multidisciplinary research hub located in Idaho Falls. Its mission will encompass the advancement of cutting-edge academic research, pedagogical innovation, and comprehensive workforce development within the domain of cybersecurity for critical infrastructures. Given the foundational role of cyber-physical systems in sectors such as energy, transportation, water management, and manufacturing, the safeguarding of these infrastructures constitutes a strategic national priority.

The Center will act as an academic catalyst, facilitating collaboration among faculty and scholars from at least four distinct disciplines—including computer science, engineering, public policy, and information systems. By fostering interdisciplinary synergies, the Center will support transformative research, drive curricular enhancements, and promote translational outcomes with tangible societal impact. Furthermore, the Center will provide an integrative platform for addressing complex cybersecurity challenges through coordinated research efforts, academic programming, and dynamic stakeholder engagement. It will play a central role in cultivating a security-conscious workforce by incorporating research-driven methodologies into educational pathways and offering experiential learning embedded in practical, real world contexts. The Center aims to establish Idaho as a leading regional nexus for innovation and excellence in the protection of critical infrastructure, in alignment with national imperatives and regional economic advancement.

Dr. Sean McBride chairs the Regional Economic Development for Eastern Idaho (REDI) Initiative Cybersecurity Group. In April 2024, the Group held a meeting at the Melaleuca Event Center in Idaho Falls. The meeting was attended by representatives from Idaho State University, University of Idaho, College of Eastern Idaho, and Boise State University. Senator James Risch sent a staff member. Several area high schools, including Madison, Idaho Falls Tech Center, and Rigby sent instructors. Consensus was that the group should approach the state to organize resources to support cybersecurity education at the middle and high school levels. The REDI Cybersecurity Group obtained the Cyber-Idaho.org Website domain, and began working with MOAT.IT, a Pocatello-based information services, and cybersecurity firm to design and host the Website.

Section 4: Number of faculty and student participants as a result of funding, with a brief description efforts.

- 3 M.S. students directly funded during FY25

1. Henok Tadelle (M.S.) - (Graduated, first position at Dell). Helped with the deployment of servers, and HPCs.
2. Tollan Berhanu (M.S.) - Helped with the development of the AE^{3}IS platform.
3. Chad Centofante (M.S.) - Led efforts related to offering developed resources that mimic adversarial activity, as a service including Breach and Attack Tools.

- 4 Faculty, including 1 Extension Faculty
- 1 new student recruited to be directly funded in next reporting period
- 17 total undergraduate and graduate students directly involved in supporting project efforts
- 7 Principal Investigators supported by this grant over the full period.

This grant effort is by design both multi-disciplined and collaborative. We have set out to create a state-of-the-art research and training facility for advanced cyber-physical systems security to span both the Idaho Falls Center for Higher Education and Pocatello ISU campuses. Together, over 20 faculty and students from both institutions have been working together on multiple facets of this grant effort: from selection of components and shopping for available new or refurbished equipment, to designing network architecture and cyber-physical systems platforms, working with vendors and contractors, university procurement, and facilities personnel, installing and configuring software, running wiring and connecting gadgets, building up, tearing down, and building up again the various platforms and elements to support our vision.

Section 5: Updated progress on long-term sustainability and description of future expansion.

- ISU and University of Idaho began work on a 2.85M project sponsored by the National Institute of Standards and Technology to continue the work started by this IGEM Award.
- ISU and University of Idaho will continue submission of grant proposals as opportunities arise.
- Being able to walk students and partners through the research and educational laboratory space supported by this grand will spark interest and result in collaboration.
- ISU's College of Technology determined to put the Introduction to Cyber-Physical Systems course on track to be offered remotely, as dual-credit/dual-enrollment, and to become a General Education class. This grant supported evolution of that course that will impact hundreds of Idaho students.
- ISU's College of Technology placed a specialized certificate in Applied Artificial Intelligence on the ISU three-year plan. This concept was developed in part with support from this grant. Courses for this certificate will originate from the Idaho Falls campus.
- Revitalization of the Level II UI Center.

Moving beyond the project, we expect to engage and train a wide variety of industry professionals in different roles and critical infrastructure industries. With additional federal funding (such as that provided by the NIST Community project obtained in 2024) and local collaboration, we intend to generate a sustainable revenue stream to sustain our staff, equipment, software licensing, and other operating expenses with commercialization paths on the horizon. The model for our Idaho Falls facilities and capabilities centers on our engagement with community and industry partners here and across the region.

Section 6: Expenditure Report

University of Idaho

Itemized Expenditures

From 7/1/2024 through 6/30/2025

Grant: UA7231 - ISBOE IGEM HERC: Secure Cyberspace

Index: 855888 - ISBOE IGEM HERC Secure Cyberspace
Fund: 227231 - ISBOE IGEM HERC Secure Cyberspace

Salaries					
E4108 Summer Salary					
		Haney, Michael	120	Hours	$11,205.60
		Kolias, Konstantinos	62.63	Hours	$4,857.77
E4109 IA/GA Salary					
		Codling, Heidi	580	Hours	$13,303.80
					$29,367.17
Fringe Benefits					
		E4280 Faculty CFR Benefit Expense			$5,092.10
		E4282 Student CFR Fringe Expense			$266.08
					$5,358.18
Travel					
E5399 Other Employee Travel					
1/13/2025	Z1088736	cables and signal processor for HE Doc Ref:			$2,338.75
1/13/2025	Z1088736	electronic components for research Doc Ref:			$519.65
1/30/2025	Z1089397	materials needed for research Doc Ref: 41571562			$766.15
4/14/2025	J1375552	TGT from E5399 to E5724 Doc Ref: Z1088736			($2,858.40)
4/14/2025	J1375558	TGT from E5399 to E5724 Doc Ref: Z1089397			($766.15)
					$0.00
Operating Expenses					
E5420 Non-Capital Office Equipment					
2/20/2025	Z1090581	3D printers, filaments, and set up Doc Ref:			$2,452.01
E5724 Research Supplies					
11/14/2024	Q0085591	Amazon Capital 150PCS Reusable Fastener Straps - 6			$10.78
11/14/2024	Q0085589	Amazon Capital Anker Cable Management, Magnetic			$61.25
11/14/2024	Q0085722	Amazon Capital HUASAI 4/5" 100 Pack Zip Tie Mount			$17.98
11/14/2024	Q0085722	Amazon Capital LX IntMfr. Hook and Loop Cable Ties,			$75.60
11/14/2024	Q0085648	Amazon Capital Secure 1 Inch Black Polyethylene			$52.39
11/14/2024	Q0085589	Amazon Capital Spiral Cable Wrap -20 Ft 1/2" Cable			$6.99
11/14/2024	Q0085589	Amazon Capital VELCRO Brand Mountable Cable			$33.88
11/25/2024	Q0087672	Amazon Capital 4 AWG Gauge Wire (25ft) Black |			$64.87
11/25/2024	Q0087672	Amazon Capital Unslotted Hex Washer Head Sheet			$125.67
11/26/2024	Q0087692	Amazon Capital Blue Sea Systems 5129 Fuse ANL			$24.41
11/26/2024	Q0087693	Amazon Capital Blue Sea Systems 5125 ANL Fuse -			$39.50
11/26/2024	Q0087693	Amazon Capital Fiberglass Roller Tools Kit, 3pcs			$11.19
11/26/2024	Q0087693	Amazon Capital SAMSUNG 990 PRO SSD NVMe M.2			$159.99

11/26/2024	Q0087699	Amazon Capital	Metoro Steel 18 gauge Metal Plate.	$221.88
11/26/2024	Q0087682	Amazon Capital	Blue Sea Systems 5131 Fuse ANL	$46.34
11/26/2024	Q0087682	Amazon Capital	OFC Black 1/0 AWG Gauge Wire	$142.87
11/26/2024	Q0087690	Amazon Capital	8 Gauge Wire - 25ft Black | 8 Gauge	$28.87
11/26/2024	Q0087690	Amazon Capital	Grade 5 Hex Cap Bolts Screws, Nuts,	$89.72
11/26/2024	Q0087694	Amazon Capital	1/0 AWG Gauge Wire (25ft) Red |	$142.87
11/26/2024	Q0087694	Amazon Capital	Corsair TM30 Performance Thermal	$7.99
11/26/2024	Q0087935	Amazon Capital	#6#8#10 Phillips Pan Head Machine	$262.42
11/26/2024	Q0087935	Amazon Capital	Blue Sea Systems 5122 Fuse ANL 50-	$20.82
11/26/2024	Q0087935	Amazon Capital	SIMPLYHARDWARE 1708 Fiberglass	$41.95
11/26/2024	Q0087917	Amazon Capital	Durham 305B-95 Cold Rolled Steel	$159.99
11/26/2024	Q0087920	Amazon Capital	Durham 102-95-IND Gray Cold Rolled	$178.65
11/26/2024	Q0087923	Amazon Capital	Astro Pneumatic Tool 1442 13" Hand	$83.42
11/26/2024	Q0087947	Amazon Capital	Blue Sea Systems 5122 Fuse ANL 50-	$20.82
11/26/2024	Q0087941	Amazon Capital	Elgato Stream Deck +, Audio Mixer,	$167.20
11/26/2024	Q0087941	Amazon Capital	Official Creality PETG 3D Printer	$12.99
11/26/2024	Q0087942	Amazon Capital	Official Creality PETG 3D Printer	$27.53
11/26/2024	Q0087942	Amazon Capital	Official Creality PETG 3D Printer	$12.99
11/26/2024	Q0087941	Amazon Capital	Polymaker ABS Filament 1.75mm	$37.38
11/26/2024	Q0087941	Amazon Capital	Polymaker ABS Filament 1.75mm	$19.54
11/26/2024	Q0087942	Amazon Capital	Polymaker ABS Filament 1.75mm	$37.38
11/26/2024	Q0087947	Amazon Capital	SVAAR 34pcs Battery Cable Lugs kit	$26.99
11/26/2024	Q0087939	Amazon Capital	SVAAR 4 6 8 AWG Battery Lug	$26.99
11/27/2024	Q0087970	Amazon Capital	8 Gauge Wire - 25ft Red | 8 Gauge	$28.87
11/27/2024	Q0087970	Amazon Capital	ALEKOR 10 Sizes 505 Pieces Large	$29.99
11/27/2024	Q0087972	Amazon Capital	Blue Sea Systems 5122 Fuse ANL 50-	$20.82
11/27/2024	Q0087972	Amazon Capital	Cooler Master MWE Gold 1050 V2	$159.99
11/27/2024	Q0088129	Amazon Capital	Antec C8 Curve Wood, Fans not	$149.99
11/28/2024	Q0088151	Amazon Capital	ASUS ROG Ryujin III 360 ARGB All-in-	$349.99
11/28/2024	Q0088153	Amazon Capital	The Original Rhino Strong Commercial	$19.95
11/29/2024	Q0088197	Amazon Capital	1" (0.944”) Clear Acrylic 24"x12"	$71.53
11/29/2024	Q0088160	Amazon Capital	TotalBoat 5:1 Epoxy Resin Kit	$154.99
11/29/2024	Q0088191	Amazon Capital	ASUS TUF Gaming GeForce RTX™	$2,204.57
11/30/2024	Q0088209	Amazon Capital	Inch 18-8 Stainless Steel Allen	$143.06
11/30/2024	Q0088204	Amazon Capital	Inch 18-8 Stainless Steel Allen	$158.09
11/30/2024	Q0088209	Amazon Capital	Screw Bolt Nut Thread Measure	$10.28
11/30/2024	Q0088204	Amazon Capital	Trivd Frol Rivet Nut Tool Kit, 520pcs	$64.77
12/1/2024	Q0088224	Amazon Capital	1" (0.944”) Clear Acrylic 12"x12"	$84.26
12/1/2024	Q0088406	Amazon Capital	AMD Ryzen 9 7950X 16-Core, 32-	$466.99
12/1/2024	Q0088413	Amazon Capital	Blue Sea Systems 5005 ANL Fuse	$52.70
12/1/2024	Q0088307	Amazon Capital	Blue Sea Systems 5164 ANL 35 AMP	$41.82
12/1/2024	Q0088408	Amazon Capital	Blue Sea Systems 5164 ANL 35 AMP	$62.73
12/1/2024	Q0088412	Amazon Capital	FLASHFORGE PLA Filament 1.75mm,	$15.83
12/1/2024	Q0088406	Amazon Capital	G.SKILL Trident Z5 Neo RGB Series	$435.96
12/1/2024	Q0088406	Amazon Capital	Metric Class 10.9 Hex Cap Screws	$122.50
12/1/2024	Q0088409	Amazon Capital	OFC 4 AWG Gauge Wire (25ft) Red |	$64.87
12/1/2024	Q0088223	Amazon Capital	Official Creality PETG 3D Printer	$25.98
12/1/2024	Q0088405	Amazon Capital	SELTERM Large Size Marine Grade	$15.99
12/3/2024	Q0088623	Amazon Capital	XINGYHENG 20 Pairs Male Female	$38.97
12/3/2024	Q0088653	Amazon Capital	CrocSee 25ft - 1/2 inch Braided	$12.79
12/3/2024	Q0088653	Amazon Capital	uxcell Silicone RCA Port Anti-Dust	$9.39
12/3/2024	Q0088617	Amazon Capital	Black, 3 ft BNC to RCA RG6 Cable -	$94.80
12/3/2024	Q0088617	Amazon Capital	HomeGoal Wire Crimper Crimping	$19.99
12/3/2024	Q0088617	Amazon Capital	Klein Tools 11063W Wire Cutter /	$29.97
12/3/2024	Q0088617	Amazon Capital	Klein Tools 63050 Cable Cutter,	$29.98
12/3/2024	Q0088657	Amazon Capital	Electriduct Wire Loom Insertion Tool	$25.00
12/3/2024	!0563969	Amazon Capital Services Inc		$0.00

12/3/2024	!0563969	Amazon Capital Services Inc	$0.00
12/3/2024	!0563969	Amazon Capital Services Inc	$0.00
12/3/2024	!0563969	Amazon Capital Services Inc	$0.00
12/3/2024	Q0088685	Amazon Capital Milwaukee 48-22-0012 Compact	$19.70
12/3/2024	Q0088681	Amazon Capital Mosconi PRO 1/10 Monoblock	$2,599.98
12/3/2024	Q0088678	Amazon Capital Mosconi PRO 4/30 Multi-Channel High	$2,599.99
12/3/2024	Q0088678	Amazon Capital Mosconi PRO410	$1,299.99
12/4/2024	!0564121	Amazon Capital Services Inc	$0.00
12/4/2024	!0564121	Amazon Capital Services Inc	$0.00
12/4/2024	!0564121	Amazon Capital Services Inc	$0.00
12/4/2024	Q0088857	Amazon Capital ASUS ROG Strix X870E-E Gaming	$469.99
12/4/2024	Q0088868	Amazon Capital Linkstye 36PCS Mini ANL Fuse,	$35.16
12/4/2024	Q0088782	Amazon Capital KnuKonceptz Bassik 2 Way Mini ANL	$57.96
12/4/2024	Q0088782	Amazon Capital KnuKonceptz Bassik 2 Way Mini ANL	$24.98
12/4/2024	Q0088782	Amazon Capital KnuKonceptz Bassik High Current 5	$39.98
12/4/2024	Q0088782	Amazon Capital KnuKonceptz KonFUSED 0 Gauge	$39.98
12/4/2024	Q0088782	Amazon Capital KnuKonceptz KonFUSED 0 Gauge	$179.92
12/4/2024	Q0088782	Amazon Capital KnuKonceptz Krystal Kable 2 Channel	$45.96
12/4/2024	Q0088782	Amazon Capital KnuKonceptz Krystal Kable 4 Channel	$53.98
12/4/2024	Q0088782	Amazon Capital Krystal Kable 2 Channel 6M Twisted	$65.97
12/4/2024	Q0088782	Amazon Capital shipping	$21.11
12/6/2024	Q0089120	Amazon Capital New Version 110V to 12V DC	$91.18
12/6/2024	Q0089116	Amazon Capital Install Bay - All In One Tester - Retail	$22.99
12/6/2024	Q0089116	Amazon Capital Recoil MFH12 2 Way Mini-ANL Fused	$33.98
12/6/2024	Q0089160	Amazon Capital Outus 5 Rolls Wire Loom Harness	$26.98
12/6/2024	Q0089160	Amazon Capital Recoil MPG3 3-Way Mini-ANL Fused	$57.98
12/7/2024	Q0089230	Amazon Capital New Version 110V to 12V DC	$109.99
12/8/2024	Q0089283	Amazon Capital Jokari 10270 Secura Cable Stripping	$22.35
12/10/2024	Z1086880	tools for research project Doc Ref: 41062931	$314.74
12/10/2024	Z1086880	tools for research project Doc Ref: 41062931	$520.01
12/10/2024	Q0089603	Amazon Capital Metric Stainless Steel Button Head	$264.94
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
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12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
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12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/16/2024	!0565094	Amazon Capital Services Inc	$0.00

12/16/2024	!0565094	Amazon Capital Services Inc	$0.00
12/17/2024	!0565180	Amazon Capital Services Inc	$0.00
12/17/2024	!0565180	Amazon Capital Services Inc	$0.00
12/17/2024	!0565180	Amazon Capital Services Inc	$0.00
12/17/2024	!0565180	Amazon Capital Services Inc	$0.00
12/17/2024	!0565180	Amazon Capital Services Inc	$0.00
12/17/2024	!0565180	Amazon Capital Services Inc	$0.00
12/18/2024	!0565221	Amazon Capital Services Inc	$0.00
12/18/2024	!0565221	Amazon Capital Services Inc	$0.00
12/18/2024	!0565221	Amazon Capital Services Inc	$0.00
12/19/2024	!0565423	Amazon Capital Services Inc	$0.00
12/19/2024	!0565423	Amazon Capital Services Inc	$0.00
12/19/2024	!0565423	Amazon Capital Services Inc	$0.00
12/20/2024	!0565570	Amazon Capital Services Inc	$0.00
12/20/2024	!0565570	Amazon Capital Services Inc	$0.00
12/20/2024	!0565570	Amazon Capital Services Inc	$0.00
12/20/2024	!0565570	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/23/2024	!0565837	Amazon Capital Services Inc	$0.00
12/24/2024	!0565909	Amazon Capital Services Inc	$0.00
12/24/2024	!0565909	Amazon Capital Services Inc	$0.00
12/24/2024	!0565909	Amazon Capital Services Inc	$0.00
12/24/2024	!0565909	Amazon Capital Services Inc	$0.00
12/24/2024	!0565909	Amazon Capital Services Inc	$0.00
12/24/2024	!0565909	Amazon Capital Services Inc	$0.00
12/24/2024	!0565909	Amazon Capital Services Inc	$0.00
12/24/2024	!0565909	Amazon Capital Services Inc	$0.00
12/24/2024	!0565909	Amazon Capital Services Inc	$0.00
12/24/2024	!0565909	Amazon Capital Services Inc	$0.00
12/24/2024	!0565909	Amazon Capital Services Inc	$0.00
12/25/2024	!0566012	Amazon Capital Services Inc	$0.00
12/26/2024	!0566079	Amazon Capital Services Inc	$0.00
12/26/2024	!0566079	Amazon Capital Services Inc	$0.00
12/26/2024	!0566079	Amazon Capital Services Inc	$0.00
12/26/2024	!0566079	Amazon Capital Services Inc	$0.00
12/26/2024	!0566079	Amazon Capital Services Inc	$0.00
12/26/2024	Q0092201	Amazon Capital EMK 90 Degree Toslink Optical Cable	$75.54

12/26/2024	Q0092201	Amazon Capital EMK 90 Degree Toslink Optical Cable	$23.98
12/27/2024	!0566146	Amazon Capital Services Inc	$0.00
12/27/2024	Q0092218	Amazon Capital EMK 90 Degree Toslink Optical Cable	$23.98
12/28/2024	Q0092294	Amazon Capital CESS-075-1f Heavy Duty Waterproof	$47.96
12/28/2024	Q0092294	Amazon Capital miniDSP, UMIK-2 USB Reference	$239.95
12/28/2024	Q0092297	Amazon Capital Bangun 0.2m (7 inch) Short Optical	$53.94
12/28/2024	Q0092300	Amazon Capital Fosi Audio BT20A Pro Bluetooth 5.0	$99.99
12/28/2024	Q0092302	Amazon Capital S.M.S.L A100 Bluetooth 5.0 Stereo	$92.99
12/28/2024	Q0092304	Amazon Capital CESS-075-6i Heavy Duty Waterproof	$42.76
12/30/2024	!0566186	Amazon Capital Services Inc	$0.00
12/30/2024	!0566186	Amazon Capital Services Inc	$0.00
12/30/2024	Q0092325	Amazon Capital CESS-075-3f Heavy Duty Waterproof	$59.96
1/15/2025	!0570069	Amazon Capital Services Inc	$0.00
1/15/2025	!0570069	Amazon Capital Services Inc	$0.00
1/16/2025	!0570148	Amazon Capital Services Inc	$0.00
1/17/2025	!0570496	Amazon Capital Services Inc	$0.00
1/17/2025	!0570496	Amazon Capital Services Inc	$0.00
1/17/2025	!0570496	Amazon Capital Services Inc	$0.00
1/17/2025	!0570496	Amazon Capital Services Inc	$0.00
1/17/2025	!0570496	Amazon Capital Services Inc	$0.00
1/20/2025	!0570548	Amazon Capital Services Inc	$0.00
1/20/2025	!0570548	Amazon Capital Services Inc	$0.00
1/27/2025	Z1089276	Research supplies Doc Ref: 42216641	$375.46
1/27/2025	Z1089276	Research supplies Doc Ref: 42216641	$145.90
3/24/2025	Q0100801	Amazon Capital EMK 90 Degree Toslink Optical Cable	($11.99)
3/24/2025	Q0100794	Amazon Capital EMK 90 Degree Toslink Optical Cable	($23.98)
3/24/2025	Q0100800	Amazon Capital EMK 90 Degree Toslink Optical Cable	($11.99)
3/24/2025	Q0100798	Amazon Capital EMK 90 Degree Toslink Optical Cable	($50.36)
3/24/2025	Q0100795	Amazon Capital EMK 90 Degree Toslink Optical Cable	($25.18)
3/24/2025	!0576596	Amazon Capital Services Inc	$0.00
3/24/2025	!0576596	Amazon Capital Services Inc	$0.00
3/24/2025	!0576596	Amazon Capital Services Inc	$0.00
3/24/2025	!0576596	Amazon Capital Services Inc	$0.00
3/24/2025	!0576596	Amazon Capital Services Inc	$0.00
4/2/2025	Q0100784	Amazon Capital CESS-075-1f Heavy Duty Waterproof	($47.96)
4/2/2025	Q0100784	Amazon Capital miniDSP, UMIK-2 USB Reference	($239.95)
4/2/2025	!0577713	Amazon Capital Services Inc	$0.00
4/2/2025	!0577713	Amazon Capital Services Inc	$0.00
4/14/2025	J1375552	TGT from E5399 to E5724 Doc Ref: Z1088736	$2,858.40
4/14/2025	J1375558	TGT from E5399 to E5724 Doc Ref: Z1089397	$766.15
			$23,686.86

$5K or > Capital Outlay

E6499 >5K Computer Equipment Other

4/11/2025	Q0108792	CDW Computer Ce DELL CTO PE R7625 2X9654	$56,899.00
4/30/2025	!0580427	CDW Computer Centers, Inc.	$0.00
			$56,899.00

Trustee/Benefits

E7140 Tuition and Fees - Grad Assistants

9/3/2024	J1362395	FFD1 for V01263740	$140.00
			$140.00

Totals for 227231 $115,451.21

Totals for UA7231	$115,451.21

University of Idaho

Itemized Expenditures

From 7/1/2024 through 6/30/2025

Grant: UA8090 - ISBOE IGEM HERC: Secu Cybersp FY25

Index: 855871 - ISBOE IGEM HERC: Secu Cybersp FY25
Fund: 228090 - ISBOE IGEM HERC: Secu Cybersp FY25

Salaries					
E4108 Summer Salary					
		Borrelli, Robert	160	Hours	$11,584.00
E4109 IA/GA Salary					
		Berhanu, Tollan	352	Hours	$8,800.00
		Tadele, Henok	736	Hours	$17,222.40
					$37,606.40
Temporary Help					
E4135 Temporary Student					
		Berhanu, Tollan	18	Hours	$450.00
					$450.00
Fringe Benefits					
		E4280 Faculty CFR Benefit Expense			$3,672.12
		E4282 Student CFR Fringe Expense			$529.45
					$4,201.57
Travel					
E5365 Personal Vehicle - Out-of-State					
6/27/2025	I2339826	Jacobsen, Thomas Arley.			$27.87
6/27/2025	I2339826	Jacobsen, Thomas Arley.			$27.71
E5368 Rental Vehicles - Out-of-State					
6/27/2025	Z1099154	Car Rental Fuel 06052025 Doc Ref: 45155981			$26.82
6/27/2025	Z1099154	JacobT 155981 Enterprise. car renta Doc Ref:			$336.79
E5381 Airfare - Out-of-State					
6/5/2025	Z1097049	TJacobsen 605873 American Air trave Doc Ref:			$373.37
E5397 Lodging & Per Diem – Out of State					
6/27/2025	I2339826	Jacobsen, Thomas Arley.			$80.00
6/27/2025	I2339826	Jacobsen, Thomas Arley.			$80.00
6/27/2025	I2339826	Jacobsen, Thomas Arley.			$80.00
6/27/2025	I2339826	Jacobsen, Thomas Arley.			$47.00
6/27/2025	I2339826	Jacobsen, Thomas Arley.			$80.00
6/27/2025	I2339826	Jacobsen, Thomas Arley.			$60.00
6/27/2025	Z1099154	JacobT 155981 Aloft. Hotel accommod Doc Ref:			$122.00
6/27/2025	Z1099154	JacobT 155981 Courtyard. Hotel stay Doc Ref:			$144.00
6/27/2025	Z1099154	JacobT 155981 Fairfield. City tax f Doc Ref:			$1.26
6/27/2025	Z1099154	JacobT 155981 Fairfield. Hotel acco Doc Ref:			$122.00

6/27/2025	Z1099154	JacobT 155981 Fairfield. Hotel acco	Doc Ref:	$126.00
6/27/2025	Z1099154	JacobT 155981 Fairfield. Room tax f	Doc Ref:	$126.00
6/27/2025	Z1099154	JacobT 155981 Fairfield. Room tax f	Doc Ref:	$8.82
6/27/2025	Z1099154	JacobT 155981 Fairfield. Room tax f	Doc Ref:	$1.26
6/27/2025	Z1099154	JacobT 155981 Fairfield. Room tax f	Doc Ref:	$8.82
				$1,879.72

Operating Expenses

E5560 Technology - Supplies

5/27/2025	Q0117097	Amazon Capital FLASHFORGE 3D Printer Filament,	$119.94
5/27/2025	Q0117097	Amazon Capital FLASHFORGE 3D Printer Filament,	$41.70
6/16/2025	!0584779	Amazon Capital Services Inc	$0.00
6/16/2025	!0584779	Amazon Capital Services Inc	$0.00

E5710 Tools

5/28/2025	Q0117256	Amazon Capital Ball End Hex Bit Set - Railer 2 Inch	$19.99
5/28/2025	Q0117256	Amazon Capital M12 Fuel 12V 1/4" Lithium-ion	$162.50
5/29/2025	Q0117491	Amazon Capital 3D Printer Tool Kit Essential 3D	$41.99
5/29/2025	Q0117491	Amazon Capital Gonex 3600 Tackle Trays 4 Packs,	$23.74
6/17/2025	!0584854	Amazon Capital Services Inc	$0.00
6/17/2025	!0584854	Amazon Capital Services Inc	$0.00
6/18/2025	!0585139	Amazon Capital Services Inc	$0.00
6/18/2025	!0585139	Amazon Capital Services Inc	$0.00

E5720 Educational Supplies

6/23/2025	Z1098349	JacobT 308552 Alphagraphics. Educat	Doc Ref:	$15.85
6/27/2025	Z1099155	JacobT 260568 Bambulab. 3D printer	Doc Ref:	$987.94
6/27/2025	Z1099155	JacobT 260568 SparkFun. Robotic com	Doc Ref:	$541.50
6/27/2025	Z1099155	JacobT 260568 SparkFun. Robotic com	Doc Ref:	$551.00

E5724 Research Supplies

4/30/2025	Q0112163	W.W. Grainger I TK122188497T Plain Washer Flat	$2.36
4/30/2025	Q0112163	W.W. Grainger I TK122188498T Flat Washer Flat	$3.96
5/2/2025	Q0112723	W.W. Grainger I TK122188499T Dowel PinSteel3mm	$8.82
5/5/2025	Q0112993	Amazon Capital M3 x 8mm Socket Head Cap Screws	$8.54
5/5/2025	Q0112933	Amazon Capital BZ 3D GT2 Idler Pulley 16 Teeth	$10.98
5/5/2025	Q0112954	Amazon Capital 5V 5A Power Supply Adapter -	$156.00
5/5/2025	Q0112954	Amazon Capital DERNORD PVC Tubing 1/4"ID X	$81.60
5/5/2025	Q0112953	Amazon Capital ELEGOO PLA Filament 1.75mm	$83.49
5/5/2025	Q0112992	Amazon Capital uxcell 6801-2RS Deep Groove Ball	$45.45
5/5/2025	Q0112955	Amazon Capital ELEGOO PLA Filament 1.75mm	$194.81
5/5/2025	Q0112955	Amazon Capital Latex Tubing, Latex Tube Natural	$9.79
5/5/2025	Q0112955	Amazon Capital SIM&NAT 20AWG 10Ft 2.1mm x	$18.58
5/5/2025	Q0112980	Amazon Capital M3 x 10mm Socket Head Cap	$7.49
5/5/2025	Q0112980	Amazon Capital M3 x 8mm Socket Head Cap Screws	$34.16
5/5/2025	Q0113036	Amazon Capital 25 Pack Stainless Steel Hose Clamps,	$9.97
5/5/2025	Q0113036	Amazon Capital 6PCS DS3231 Real Time RTC Clock	$14.95
5/5/2025	Q0113036	Amazon Capital HICTOP 3D Printer Belt 5	$39.96
5/5/2025	Q0113036	Amazon Capital Latex Tubing, Latex Tube Natural	$9.79
5/5/2025	Q0113036	Amazon Capital M3 x 12mm Socket Head Cap Screws	$42.70
5/5/2025	Q0113036	Amazon Capital SIM&NAT 20AWG 10Ft 2.1mm x	$27.87
5/5/2025	Q0113036	Amazon Capital Tactical Rubber Bands Size #82 (2	$8.12
5/6/2025	Q0113196	Amazon Capital M3 x 10mm Socket Head Cap	$14.98
5/6/2025	Q0113196	Amazon Capital XIKE 10 Pcs 6701-2RS Bearings	$8.99
5/6/2025	Q0113195	Amazon Capital BZ 3D GT2 Idler Pulley 16 Teeth	$32.94
5/6/2025	Q0113195	Amazon Capital XIKE 10 Pcs 6701-2RS Bearings	$26.97
5/6/2025	Q0113306	Amazon Capital Fullerkreg M3 x 25MM Socket Head	$15.62
5/7/2025	Q0113438	Amazon Capital XIKE 10 Pcs 6701-2RS Bearings	$62.93

5/7/2025	Q0113514	Amazon Capital XIKE 10 Pcs 6701-2RS Bearings	$26.97
5/10/2025	Q0114115	Home Depot Pro Charlotte Pipe 1 in. x 10 ft. PVC	$50.32
5/19/2025	!0582070	W.W. Grainger Inc.	$0.00
5/19/2025	!0582070	W.W. Grainger Inc.	$0.00
5/21/2025	!0582611	W.W. Grainger Inc.	$0.00
5/21/2025	Q0115985	Home Depot Pro Charlotte Pipe 1 in. x 10 ft. PVC	$75.48
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/26/2025	!0582890	Amazon Capital Services Inc	$0.00
5/27/2025	!0582941	Amazon Capital Services Inc	$0.00
5/27/2025	!0582941	Amazon Capital Services Inc	$0.00
5/30/2025	B1951216	Home Depot Pro	$0.00
6/10/2025	B1951705	Home Depot Pro	$0.00
6/11/2025	Q0119924	Amazon Capital XOOL 62 in 1 Precision Screwdriver	$12.58
6/12/2025	Q0120256	Amazon Capital Gonex 3600 Tackle Trays 4 Packs,	$25.64
6/12/2025	Q0120256	Amazon Capital Stemedu 5PCS Capacitive Analog Soil	$8.46
6/16/2025	Q0120945	Amazon Capital 9V 5A Power Supply, COOLM 9V 5A	$159.00
6/16/2025	Q0120941	Amazon Capital BZ 3D GT2 Idler Pulley 16 Teeth	$43.92
6/16/2025	Q0120946	Amazon Capital Railer 20pc Screwdriver Bit Set -	$18.50
6/16/2025	Q0120946	Amazon Capital Stemedu 5PCS Capacitive Analog Soil	$33.84
6/18/2025	Q0121414	Amazon Capital Railer Allen Wrench Hex Bit Set 2	$18.50
6/18/2025	Q0121414	Amazon Capital Stemedu 5PCS Capacitive Analog Soil	$42.30
			$4,003.48

< $5K Non-Capital Outlay

E7810 <5K Technology Equip - Office/Deptl

6/5/2025	J1379013	TDX429171 7-Surface+7-MBA+ship kjw	$31,928.75
			$31,928.75

Trustee/Benefits

E7140 Tuition and Fees - Grad Assistants

9/6/2024	J1362409	GRFT for V00894165	$804.86
9/6/2024	J1362409	SHI1 for V00894165	$1,022.34
9/6/2024	J1362409	TFGR for V00894165	$4,221.33

9/6/2024	J1362409	VVSF for V00894165	$92.94
1/28/2025	J1371039	GRFT for V00894165	$866.00
1/28/2025	J1371039	SHI2 for V00894165	$1,100.00
1/28/2025	J1371039	TFGR for V00894165	$4,542.00
1/28/2025	J1371039	VVSF for V00894165	$100.00
2/1/2025	J1371004	GRFT for V00978865	$866.00
2/1/2025	J1371004	SHI2 for V00978865	$1,100.00
2/1/2025	J1371004	TFGR for V00978865	$4,542.00
2/1/2025	J1371004	VVSF for V00978865	$100.00
			$19,357.47
		Totals for 228090	$99,427.39
		Totals for UA8090	$99,427.39