Aiden Cherniske

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Education

Bucknell University - BS in Computer Engineering | Engineering GPA: 3.43 (expected) May 2027

Experience

Teaching Assistant ECEG 201, Bucknell University – Lewisburg, PA August 2025 – Present

- Facilitated weekly help sessions totaling 8 hours per week outside regular class time providing personalized support that improved student course satisfaction and scores
- Recorded and edited a series of 15+ instructional tutorial videos covering complex topics and assignments
- Instructed students on technical datasheet interpretation and documentation best practices enabling students to successfully complete independent research projects
- Guided students in developing circuit testing and measurement skills using benchtop oscilloscopes and multimeters resulting in improved proficiency in hands-on labs

Makerspace Manager, Bucknell University – Lewisburg, PA January 2025 – Present

- Trained over 100+ new users on proper equipment operation and safety protocols and provided daily technical consultation and troubleshooting
- Diagnosed and repaired complex machinery failures on laser cutters, 3D printers, and fabrication tools resolving 90% of equipment issues within 24 hours
- Supervised and managed a team of 8 student technicians implementing training protocols and work schedules

First Year Engineering Mentor "Garman Guide", Bucknell University – Lewisburg, PA April 2024 – Present

- Selected as a peer mentor to guide 10+ first year engineering students through their transition to college
- Conducted weekly group sessions and individual meetings to provide academic advising and connect students with campus resources including tutoring services, study groups, and faculty office hours

Projects

PortalBox | IOT Access Control System -

- Developed a low cost and open source IoT equipment access control solution using ESP32-S3 and custom PCB design, reducing equipment management costs by 70% compared to commercial alternatives
- Developed Python-based software service with MariaDB database integration and web interface enabling real-time equipment tracking and event logging
- Collaborated with cross-functional student teams and staff to design scalable solution deployed in student makerspaces across the Bucknell campus and central PA region

Bucknell Racing | Electronics and Controls github.com/ACherniske/E-C-Subteam-Bucknell-Baja

- Led a team of 8+ engineers in developing comprehensive electronic systems for competition and achieved Baja SAE rulebook compliance, passing technical inspection without revision
- Collaborated with suspension, drivetrain, and chassis subteams to identify critical performance metrics including engine and CVT RPM and temperatures and wheel speed
- Designed custom Arduino Mega 2560-based PCB with integrated I2C, SPI, and analog sensor interfaces, enabling data collection of vehicle systems while maintaining modular expandability

Skills

Programming Languages: Python, MicroPython, C++, C, ARM Assembly, HTML, ReactJS, Tailwind, MATLAB, BASH

Hardware Platforms: ESP32(S3, C6), Arduino(Mega, Leonardo, Uno), Adafruit Feather(M0, M4), iCE40 FPGA

Design Tools: KiCAD, Adobe Creative Suite(Photoshop, Illustrator, Premiere Pro), PrusaSlicer, YosysHQ Toolchain

Technical Focus: PCB Design, IoT Systems, Data Acquisition, Digital Fabrication, FPGA Development

Awards: Eagle Scout, Marvelwood Class of 2023 Valedictorian, UConn NRCA Conservation Story Map Award