Benjamin C. Boardley

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EDUCATION

Purdue University
Bachelor of Science in Computer Engineering   Expected May 2024
          GPA: 3.94/4.0
Master of Science in Computer Engineering   Expected May 2025

EXPERIENCE

SERIS Research Group – Team Lead   West Lafayette, IN
Team Lead for the low power computer vision challenge   Feb 2023 – Aug 2023

- Lead a team of organizers in successfully orchestrating a large-scale **computer vision** competition that processed 677 submissions across 117 international teams during the month of July.
- Developed and deployed a Referee System to autonomously evaluate segmentation models on a NVIDIA Jetson Nano.
- Engineered an **automated** communication and scoring pipeline between a web and evaluation server leveraging **python, bash scripting,** and **network protocols** to ensure real-time leaderboard rankings.
- Maintained the competition webpage leveraging **Django**. The webpage can be found at **https://lpcv.ai.**

Notre Dame Turbo Laboratory – Software Engineering Intern   South Bend, IN
Web development and API integration   Jun 2023 – Aug 2023

- Implemented software to communicate with Monday.com's API using **graphQL** to automate excel resource visualization.
- Developed a website featuring a researcher's computation model utilizing **PyScript** to help integrate Python code within web browsers. Resulting in the creation of a client-side-only website with Python-based computational capabilities.
- Created a desktop application with python's **tkinter** library to help users interface with a complex fluid dynamics software.

Teacher's Assistant – CS 15900   West Lafayette, IN
Lab Section Instructor   Jan 2021 – Present

- Instruct a Lab Section of 30 beginner programmers where I guide students in learning C programming fundamentals.
- Grade weekly lab and homework assignments providing feedback on the student's techniques.

PROJECTS

Package Registry – Class Project   Aug 2023 - Present

- Collaborating with a team of students to utilize **Typescript** and **Node.js** to develop an open-source package registry, like NPM, that can facilitate the collection of secure and accurate packages.
- Interfacing with the GitHub and NPM **RESTful APIs** to create a web platform hosted on **AWS** with the capabilities to upload, update, rate and download individual open-source packages using data stored in a **MYSQL** database.

IEEE Remotely Operated Underwater Vehicles – Software Team   Aug 2022 - Present

- Collaborate with a team of engineers to develop software that can control an underwater vehicle utilizing **ROS2.**
- Developing a user interface leveraging **PyQt** that can connect with the vehicle camera stream and ROS2 backend.

COURSE WORK

Software Engineering   ECE 461
          Skills: TypeScript – REST API– Data Base Management – AWS
Artificial Intelligence   ECE 570
          Skills: Machine Learning – Deep Learning – Generative Models
Data Mining   ECE 595
          Skills: Data Preprocessing – Clustering – Dimensionality Reduction – Link Analysis

SKILLS

Languages: Python, C++, JavaScript, HTML, CSS, SQL, Bash
Libraries and Frameworks: Django, React, TypeScript, pytorch, numpy, tensorflow, matplotlib, sklearn, keras
Skills: Full Stack development, Machine Learning, Computer Vision, Computer Security, Computer Networks