Aiden Seo

703-901-3760 | aidenseo1190@gmail.com | aidenseo3180.github.io

Relevant Links: LinkedIn | GitHub
Programming Languages: C, C++, C#, Python, Java, JavaScript/HTML/CSS, PostgreSQL, Swift, MATLAB, VHDL
Frameworks: ASP .NET Core 7.0, Bootstrap, Flask, TensorFlow, PyTorch
Technologies: Git, Linux, Jira, Eclipse, IntelliJ, VSCode, VMWare, CCSTUDIO, Jupyter, Kubernetes, Docker

EDUCATION

University of Pittsburgh – Pittsburgh, PA **April 2026**
Master of Science - Computer Engineering

University of Pittsburgh – Pittsburgh, PA **April 2024**
Bachelor of Science - Computer Engineering

EXPERIENCE

University of Pittsburgh Swanson School of Engineering **May 2024 - Present**
Graduate Research Lead

- Developing NAS (Neural-Architecture Search) with multi-exit feature for embedded, resource-constraint processors to implement a more efficient NAS for microprocessors with a better performance and accuracy
- Working as a Graduate Research Lead under the supervision of Dr. Jingtong Hu from the University of Pittsburgh, leading an entire research team that consists of 6 undergraduate and graduate students

Tsinghua University **June 2024 - July 2024**
International Researcher

- Selected as one of the four candidates of IRES Track I: International Research Experience for Students
- Visited Tsinghua University located in Beijing, China to participate in various researches with local professors and students as part of the program over the summer
- Improved the individual UV exposure pattern recognition system running on nonvolatile IoT platforms

Microsoft **January 2024 - April 2024**
Industry Project Fellow

- Developed and released pytest-xdist-kubernetes plugin in PyPi. enabling remote execution of pytest across multiple Kubernetes pods and display the results at the end to perform massive QA tests
- Achieved a reduce in a software testing time that involves Kubernetes, resulting in time savings for over 30 Microsoft employees
- Conducted weekly meetings with engineers from Microsoft and professors from the University of Pittsburgh

Infor **May 2023 - August 2023**
Software Development Intern

- Created a database inspector tool using JSP and SQL queries to provide faster access to the SQL server from the web
- Optimized existing SQL queries utilized for database access, resulting in a 24% reduction in processing time
- Designed SQL queries, servlets, and user interfaces for a new feature to be integrated into the customer interface.

WEX Inc. **September 2022 - May 2023**
Software Engineer Intern

- Employed Gherkin and Python to develop automated REST API test cases for both frontend UI and backend API of multiple services, ensuring their reliability and validity to mitigate potential code flaws.
- Collaborated with professional developers to closely monitor the development cycle of a newly added service
- Utilized agile technique and actively participated in the daily standups to reduce technical debt

University of Pittsburgh Swanson School of Engineering **May 2022 - October 2023**
Research Assistant for Graduate Student

- Used OpenMV, Python, and TensorFlow to develop an optimized object detector deployable to low-powered micro circuit devices with an attached camera, testing its reliability under extreme conditions
- Evaluate the reliability of wirelessly powered supply of microcircuits using inductive charging techniques

PROJECTS

32-bit MIPS CPU | GitHub Code | (VHDL, TCL, C, Xilinx, Vivado 2018.3)

- Programmed a CPU capable of executing 21 basic MIPS assembly commands using VHDL in Vivado 2018.3
- Implemented a CPU structure mirroring real-world components, including ALU, Register, Memory Unit, and Control Unit, with a simplified five-stage pipeline structure based on internal clock bits using a Mealy machine

Asynchronous Wildfire Cellular Automata Simulation | GitHub Code | (Python, Jupyter Notebook)

- Wildfire simulation that uses a cellular automaton with states to predict how wildfire would spread over time
- A cell to update gets selected the random independent scheme which is one of the common update schemes