Damien Staebler

Oak Ridge, TN • damienweifen@gmail.com • linkedin.com/in/damien-steabler

Education

University of Tennessee, Knoxville – B.S. in Computer Engineering, Graduation: 2028

Pellissippi State Community College – A.S. in Computer Science, GPA: 3.92

Professional Experience

Oak Ridge National Laboratory – Oak Ridge, TN   Intern | May 25 – Aug 2025

- Developed an end-to-end cancer classification pipeline using **Frontier**, the world's fastest **high-performance computing (HPC) system**.
- Designed a **Vision Transformer-based embedding model** that improved classification accuracy by **15%** compared to CNN-based **ResNet50 embeddings**.

RoboGenesis – Remote   Aug 2024 – Present

- Mentoring an **FTC team** based in San Diego, helping them select the right **electronics and sensors for their tasks**, while supporting Java programming for autonomous control and computer vision.
- Assisting with software troubleshooting and guiding the team on **best software practices to enhance robot performance**.

Rockin Community Cats – Remote   Freelance | Jun 2024 – Aug 2024

- Designed and developed **rockincats.com** for a local cat rescue organization using **Figma, Typescript, HTML5, CSS, and bootstrap.**
- Saved the organization over **$500 annually** by replacing Wix with a custom **Cloudflare-hosted site**, allowing more funds to support cat rescue and care.

Pellissippi State Community College – Hardin Valley, TN   May 2024 – Aug 2024

- Guided and supported **high school students** throughout their tech internships to help them succeed.
- Coordinated with program staff to **keep internship running smoothly** and address any challenges.

Student Organizations

Engineers of Pellissippi – Hardin Valley, TN   Jan 2024 – May 2025

- **Lead of avionics development** for a **NASA-sponsored Space Grant Midwest Rocketry Club project**, building an Arduino-based system to collect flight data.
- Designed, developed, and maintained the club's **website** to document and **showcase the team's progress and technical work.**

FIRST Robotics Green.Griffins; Team 10092 – San Diego, CA   Oct 2022 – Jun 2023

Awards: Think 1st, Inspire 2nd, Innovate 2nd, Control 2nd
- Served as the **Lead Software Developer**, designing and implementing Java-based systems including autonomous control using **PID fused with multiple sensors**, and computer vision with **OpenCV**.
- Ensured all software was completed **on schedule** to give drivers time to practice, and automated key functions to let drivers focus on **game strategy** rather than robot control.

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Projects

Github | SmilesBot   Mar 2025 – Present

- Developed an **open-source Discord bot** using Python and RDKit to render chemical structures from **SMILES** (Simplified Molecular Input Line Entry System) strings into chemical structure images.
- Integrated **real-time rendering directly into Discord**, making molecular visualization more **accessible for students and educators**.

Github | TouchPortal-API   May 2021 – Dec 2024

- **Created TouchPortal-API**, a **Python library** that simplifies TouchPortal plugin creation by **automating socket communication**, enabling developers to **focus on core functionality**.

Github | TouchPortal-Windows-MediaMixer   Jan 2022 – Present

- Built a TouchPortal plugin using TouchPortal-API and Windows' undocumented audio API to control the media mixer, allowing users to adjust sound via mobile devices

Github | SoundcoreDesktop   Apr 2021 – Dec 2023

- Reverse-engineered Bluetooth communication protocols using Wireshark and developed a **Tkinter-based** Python desktop app to emulate official Soundcore mobile app functionality.

Licenses & Certificates

Dean's List — Pellissippi State Community College
Issued May 2024, Dec 2024, Jun 2025
Recognized for academic excellence in Chemistry, Computer Science, and Mathematics.

AMATYC Student Mathematics League — Pellissippi State Community College
Issued Apr 2025
Participated in a national mathematics competition for community college students.

CMC Machining Training Program — IACMI – The Composites Institute
Issued Nov 2023
Skills: CNC Mill · CNC Operation · CNC Manufacturing · CNC Programming

The Web Developer Bootcamp 2021 — Udemy
Issued Aug 2021
Skills: JavaScript · MongoDB · HTML5 · Express.js · CSS · EJS · AJAX

The Complete Python Bootcamp: From Zero to Hero — Udemy
Issued Mar 2021
Skills: Python (Programming Language)

Technical Skills

Languages: Python, Javascript, Typescript, Java, C/C++, SQL

Technologies & Tools: Git/Github, ReactJS, Docker, MongoDB, ExpressJS, OpenCV, OpenMPI, VSCode, NeoVim