WILLIS ERDMAN

2610 NW Overton St.   willis.erdman@gmail.com | (971) 386 – 6453
Portland, OR 97210   linkedin.com/in/williserdman | github.com/williserdman | williserdman.com

EDUCATION

CASE WESTERN RESERVE UNIVERSITY – CLEVELAND, OH   Graduation May 2027.
Master's in Computer Science (Dual Enrollment), **GPA: 4.0/4.0 (Expected May 2027)**
B.S.E. in Electrical Engineering, **GPA 4.0/4.0**.

- Dean's High Honors. Studied at uc3m. Courses taken: Discrete Math, Data Structures, Algorithms, Linear Algebra, Differential Equations, Physics, Circuits, Digital Logic Design.

EXPERIENCE

PROGRESSIVE INSURANCE   Jan 2025 – Present.
xLab Student Consultant, Case Western Reserve University. Cleveland, Ohio.

- Researched smart devices to optimize risk profiling, and design incentive models for program adoption.
- Created a proof-of-concept digital twin interface to assess property risks using smart home technology.
- Presented evaluations to stakeholders on business impact, customer retention, and program interest.

PORTLAND STATE UNIVERSITY   June – Sep 2024.
Research Intern, Department of Electrical and Computer Engineering (MCECS). Portland, Oregon.

- Deployed ML models with 95% accuracy predicting coffee by gas signatures and radar fingerprinting.
- Created a data pipeline for APRS telemetry and Meshtastic sensor data using SvelteKit and Chart.js.
- Developed IoT-based environmental sensor networks for remote monitoring up to 50km away.
- Developed balloon simulator using NOAA data for flight trajectory predictions based on wind patterns.

ASIACOM AMERICAS   June – Sep 2023.
Data Center Technician. Hillsboro, Oregon.

- Led a team of 5 to identify and resolve 10+ common installation issues.
- Conducted weekly QA and post-assembly maintenance on 30+ TikTok and Bytedance server racks.

STARBUCKS   June 2021 – Nov 2022.
Barista. Portland, Oregon.

- Collaborated with a 10-person team to achieve shared goals.
- Created a positive customer experience for upwards of 50 customers an hour.

AWARDS AND ACTIVITIES

COLLABORATIVE CODING CWRU – TEAM LEAD   Sep 2024 – present.

- Led three sub-teams in the design and implementation of an Arduino R4-based system with a matrix of LEDs, remotely controlled via a web application deployed to Google Cloud Platform.
- Guided team members in overcoming technical challenges, ensuring timely project development and deployment, and enhancing the team's understanding of cloud-based IoT systems.

VTOLCWRU – DESIGN, BUILD, FLY COMPETITION   Sep 2024 – present.

- Designed and integrated flight control systems, including sensor arrays, navigation electronics, and communication modules, enabling precise autonomous navigation through a 400-yard circuit.
- Conducted detailed PCB design for avionics using KiCAD, considering weight and size constraints.
- Integrated wireless communications systems, enabling live off-board compute during flights.

WON CITADEL LLC / CITADEL SECURITIES' `terminal` CODING COMPETITION.   Sep 2022.

- Developed a competitive agent for a real-time strategy tournament, optimizing for limited compute time and memory usage to enhance performance under constraints.
- Conducted rigorous testing on 15 different models, ultimately optimizing the agent to utilize the allotted 5 seconds of compute per turn, significantly improving efficiency.
- Implemented advanced AI techniques to track moves, allowing adaptive responses during gameplay.

SKILLS AND LANGUAGES

- English (native); Spanish (native/fluent).
- C++, Java, Python, R, JavaScript/HTML/CSS, MATLAB, SystemVerilog, SQLite, Firebase, Git, Soldering, PCB design, SOLIDWORKS/Fusion 360, MultiSim, PyTorch, Linux, GCP. HuggingFace.

OTHER

- FCC Amateur Radio Service Operator – Technician Class.
- Also interested in travel, hiking, and soccer.