

ZACHARY LANCE

resume.zacharylance.com | 629-238-6241 | linkedin.com/in/Zachary-lance/

EDUCATION

The University of Alabama – Bachelor of Science in Computer Engineering – Tuscaloosa, AL

May 2028

EXPERIENCE

EOSYS – Controls Engineer – Nashville, TN

Aug 2025 – Present

- Design control system hardware and software for food and beverage manufacturing automation
- Design and commission Ethernet/IP networking, VFD, and remote I/O panels for production lines
- Aided in the programming of Programmable Logic Controllers and in the commissioning of the controllers
- Assisted with production startups and shutdowns, and provided production support
- Develop HMI screens and wire operator control panels using FactoryTalk View SE

HCA – AI Data Analyst – Nashville, TN

May 2025 – Aug 2025

- Successfully developed an AI model to assist with the prediction of pain scores post arthroplasty surgery.
- Utilized the Vertex AI and Jupyter Notebook workspaces in Google Cloud to develop, train, test, and deploy pickled XGBoost Models to predict pain scores.
- Pain scores were successfully predicted using real historical data.
- Retrieved, curated, and utilized data from Google BigQuery and Databricks in pandas
- Worked and assisted the iCORE team as it migrated its AI models from Azure to Google Cloud
- Conducted field observations in the operating room and with doctors to establish best features
- Distributed research surrounding pain prediction scoring at an internal presentation.

Alabama Rocketry Association – Payload Team Lead – Tuscaloosa, AL

Jan 2024 – Apr 2025

- Led 4-person team to design, build, and deploy a self-propelled recovery device at 800 ft AGL for NASA Student Launch
- Collaborated with 20+ other members to design and integrate a payload recovery device into a high-powered rocket for NASA's Student Launch Initiative
- Led the primary payload team for the 2024-2025 Spaceport America Cup, consisting of a thermal video device that data logs and analyzes the heating on the fins upon rocket ascent.

Sumner County Schools Board of Education – Network Technician – Gallatin, TN

Jun 2021 – Aug 2024 (summer)

- Facilitated student and teacher device deployment at a new Elementary and High School
- Overhauled enterprise wireless infrastructure across 10 schools, upgrading access points and controller firmware
- Staged networking equipment, including Network Video Recording systems across Sumner County Schools
- Staged remote camera access systems for local Police Departments.

SKILLS

Software: Microsoft Office, SolidWorks, Fusion 360, VS Code, Open Rocket, RockSim, Google Suite (Docs, Sheets, Slides), Adobe CC Suite (Lightroom, Photoshop, Premiere Pro), Mounriver Studio, Arduino IDE, JetBrains Suite

Manufacturing Skills: FDM, SLA, MSLA, KiCAD/EasyEDA, PCB Design, AUTOCAD Electrical, ProgeCAD, Control Logix Studio 5000, Factory Talk View ME/SE, Google Cloud, VertexAI, Jupyter, Git, XGBoost, Optuna, Pandas, Azure, DataBricks.

Programming: C, C++, C#, Python, Java, R, Functional/Ladder logic (Control Logix Studio 5000)

HAM Radio Technician Certification, L1 High Power Rocketry Certification (NAR)