Leo Marek

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Student interested in software engineering, deep learning, and computer architecture. Experienced technical leader in groups of 4-40 people. Sailing coach, chess amateur, and outdoors enthusiast.

EDUCATION

Rice University, *BS in Electrical and Computer Engineering, BA in Computer Science* | Houston, TX — May 2026
GPA: 3.87 / 4.0

- **Rice Engineering Alumni Leadership Excellence Award:** Selected as one of ten Rice Engineering undergraduates from a pool of over 1,600 for outstanding leadership on campus and beyond
- **FIRST at Rice President:** Run 100+ student FIRST alumni outreach spreading STEAM education among under-served schools
- **Rice Sailing (Captain):** Compete against varsity programs at the highest level of college sailing - weekly practice, classroom training, and 10 weekends of competition travel annually
- **IEEE Representative:** plan IEEE socials and corporate recruiting lunches, connect with IEEE organizations in industry and academia
- **Rice CS Club and Rice Data Science Club** Hackathons, Bootcamps, Mentorship and Coursework Support
- **Courses:** Machine Learning, Algorithmic Thinking, Parallel Programming, Computer Systems, Computer Architecture, Digital Logic Design, Signals and Systems, Discrete Math, Honors Linear Algebra

EXPERIENCE

Team Engine, *Engineering Intern* | Remote (California, USA) — May 2024 - Aug 2024

- Developed core functionalities such as integrating employee profile images throughout the application and implementing machine learning-based models and tools to transform survey data into actionable insights
- Designed and implemented scalable features using TypeScript (React), large language models, machine learning APIs, AWS, MySQL, Python, and Docker, collaborating with senior engineers to review design decisions
- Delivered features critical to several large sales, used by over 2,500 managers across 850 employers, impacting 200,000 employees

Oshman Engineering Design Kitchen, *Laboratory Assistant* | Houston, TX — Jul 2023 - Present

- Implemented software using AWS SQS and Lambda to interface with multiple APIs, save over 8 hours of manual data entry weekly, and manage makerspace tool access for over 1300 students
- Instructed machine usage, assisted over 40 Design Project Teams working for clients from Hospitals to the Department of Defense
- Maintained proficiency with, repaired, and upgraded equipment including 3D printers, machine tools, laser cutters, waterjet cutter, plasma cutter, electrical instrumentation, test sensors, and CNC machines

Alloy Technologies, *Communications Intern* | San Francisco, CA — Mar 2020 - Apr 2020

- Produced marketing video content (4000+ impressions) and helped coordinate national conference presentations to demonstrate benefits of smart supply chain analytics
- Communicated with executive leadership to maintain workflow when supply chains were struggling during onset of the pandemic

SKILLS

Competencies	Software Development, Computer Architecture, Machine Learning, Embedded Systems, Data Engineering, System Design, Electronics, Technical Writing, Project Management, Leadership
Technologies	Python, C/C++, Verilog, CUDA, Java, Typescript, HTML, CSS, CMake, Matlab, Git, Bash, LaTeX
Software	Linux, Tensorflow, Pytorch, Numpy, Keras, Pandas, Scikit-learn, Docker, Kubernetes, React, NodeJS, LtSpice, Autodesk EAGLE, VMware, AWS, Google Cloud
Certifications	US Sailing Small Boat Instructor, International Offshore Safety at Sea, Red Cross First Aid/CPR/AED

SELECTED PROJECTS

ML Frequency Analysis of Sleep Stage Data — Rice Datathon

- Classified sleep stages with 80+% accuracy, the highest of all 9 teams in the neurotech track
- Used 3 different models: a convolutional neural network, fully connected neural network, and gradient boosted trees
- Proved correlation between income and sleep quality - won Best Social Impact Project out of 59 teams

FPGA Implementation of RISC Processor — ELEC 326 - Logic Design

- Executed in Verilog, simulated processor design using Icarus Verilog on central Linux cluster
- Deployed on Spartan 7 FPGA using Xilinx Vivado, wrote custom assembly language programs for testing

Low-Cost Negative Pressure Wound Therapy — Rice Bioengineering

- Conducted needs assessment at five hospitals in Costa Rica, translating observations from patients and physicians into viable ideas
- Navigated prototyping process with a team of four despite highly limited vendors, tooling, documentation, and resources
- Designed, built, and open-sourced a low-cost negative pressure wound therapy device for use in developing countries
- Constructed embedded electrical system using ESP32 microcontroller - wrote control systems and UI from scratch in C++