

Max Leblang

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EDUCATION

University of Wisconsin - Madison
Computer Engineering B.S.

December 2025
GPA: 3.96/4.00

Selected Coursework: Operating Systems, Introduction to Robotics, Digital System Design and Synthesis

WORK EXPERIENCE

Delve Madison, WI
Embedded Systems Engineering Intern May 2025 - Present

WISION Lab Madison, WI
Computer Vision Research Engineer September 2024 – May 2025

- Collaborated with graduate students from UW-Madison and Portland State University to develop an open-source Python library that integrates realistic sensor emulation with pixel-perfect simulation for computer ground truth annotation
- Improved CLI functionality and enabled more control over subprocess management by restructuring codebase to support Tyro and Python's subprocess library

Optimal Ticketing Madison, WI
Backend Software Engineer (part-time) January – May 2025

- Scaled integration app from prior internship to handle high throughput syncing of 10,000+ accounts in less than a minute
- Implemented a multithreaded ticket price synchronization service that maintained accurate, real-time pricing between production ticket data and external APIs

Backend Software Engineering Intern June – August 2024

- Designed and built a real-time ticket data integration app in Python that reduced transaction reconciliation time by 160 hours per month by syncing purchase and inventory data across multiple API endpoints
- Increased production data sync throughput by 80% by multithreading API calls, requiring extensive system-wide data validation and logging to ensure no data was missed between syncs

Wisconsin Embedded Systems and Computing Lab Madison, WI
Machine Learning Research Engineer September 2023 – June 2024

- Took primary ownership over the deep learning section of research paper that utilizes the MMCOWS dataset to track and predict dairy cow heat illness in collaboration with a team of two graduate students (paper on the way)
- Built a sliding-window data preprocessing pipeline to segment over 61M data points for training
- Designed a multi-headed CNN in TensorFlow that classified 4 distinct behaviors across 10 cows with an accuracy of 96%

Paperless Parts Boston, MA
Computational Geometry Software Engineering Co-op January - June 2023

- Automated the detection and healing of geometric problems in uploaded customer files that increased customer's ability to estimate costs by 7% by implementing computational geometry APIs in Python and C++
- Based on previous success enhancing CAD file processing, increased file size ingestion capacity by 4x across the entire platform by refactoring a C++ file conversion microservice to enable the sharing of files through API calls

PROJECT EXPERIENCE

SmartMigrate March 2025 – Present

- Awarded \$1,000 for Best Prototype and Demo at the 2025 Transcend UW Innovation Competition
- Built a scalable, multilingual AI assistant that supports over 20 languages by integrating OpenAI's Assistants API with a local translation microservice in a Next.js app

FPGA Knights Tour September – December 2024

- Programmed a fully autonomous robot to solve the Knights Tour problem in SystemVerilog
- Fully implemented the digital logic for 16-bit UART and SPI communication with peripheral devices, PID and PWM controlled motors, and the most optimal solution to the Knights Tour problem on a 5x5 board

LEADERSHIP EXPERIENCE

Teen Leadership Program Coordinator, Camp Kesem at UW-Madison September 2024 – Present

VP of Recruitment, Delta Kappa Epsilon Fraternity January – May 2023

VP of Social Events, Delta Kappa Epsilon Fraternity January – December 2022

TECHNICAL SKILLS

Python, C, C++, SystemVerilog, MATLAB, Linux, ROS2, FreeRTOS, Git, Jira, REST APIs, Pandas, TensorFlow