Peter Olsen

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EDUCATION

University of Minnesota - Twin Cities — Minneapolis, MN
Bachelor of Science in Computer Science, 3.979 GPA — *Aug. 2022 – Dec. 2025*

Activities: Tau Beta Pi - National Engineering Honor Society

Awards: UK International Music Competition 1st Prize, Deans List 4x, Presidential Scholarship

WORK EXPERIENCE

Software Development Intern — May 2024 – August 2024
RAO Manufacturing Company — *Fridley, MN*

- Developed the first internal company website in order to increase accessibility of various operations
- Improved supervisor performance by 40% by moving systematic data entry online from on paper
- Created an API suite to allow for transfer of data to the internal website
- Visualized historical production data with Chart.js, providing new insights about company operations
- Configured the app to the needs of the company based on responses from conducting employee surveys
- Collaborated with others to quickly learn principles of jBASE database interaction and Linux server configuration
- Refactored and wrote various programs in jBASE BASIC in order to improve employee workflow, modify employee data, and visualize production data

Computer Science Teaching Assistant - *CSCI 4131, 1133* — Aug. 2023 – Present
University of Minnesota - Twin Cities — *Minneapolis, MN*

- Aided students in learning fullstack development paradigms along with fundamentals of HTML, CSS, JS, and SQL
- Enhanced leadership skills by leading labs, directing other TAs, and teaching concepts to the lab section
- Assisted students with problem solving skills in two weekly labs and office hours

PROJECTS

Holysheet | *Ember.js, Firebase, Azure, JavaScript, CSS* — November 2024 – Present

- Created an in-browser PDF editor from scratch with the pdfjs and pdflib JavaScript libraries and Canvas API
- Solved a personal issue of not having editable sheet music PDFs stored in a central location
- Configured Google Firebase for user text data, and Azure blob storage for secure storage of user binary data

Plantiful | *Flask, Jinja, JavaScript, CSS, PostgreSQL* — September 2024 – November 2024

- Deployed a full stack web application focusing on user socialization about houseplants
- Migrated an 80,000 entry USDA database into PSQL and created a corresponding Flask API, efficiently solving issues with inconsistent external APIs
- Implemented full-text search in the API database, resulting in 25% faster queries
- Configured overarching app processes such as CI/CD deployment strategy and user authentication processes

GopherTransit | *HTML, CSS, JavaScript* — August 2024 – September 2024

- Identified a problem with inconsistency of MetroTransit schedules to be solved with a web application
- Created a simple web application to hold user preference data via the Web Storage API
- Scheduled calls to external APIs to efficiently display transit data to the end user

JavaScript Function Finder | *Rust* — July 2024 – September 2024

- Developed complex algorithms for parsing JavaScript files and locating function calls and declarations
- Utilized multithreading processes to significantly increase the speed of complex file I/O
- Implemented user interactivity through a clap command line interface

TECHNICAL SKILLS

Languages: JavaScript/TypeScript, HTML/CSS, Python, Java, C, Rust, SQL, OCaml, jBASE BASIC
Technologies: Svelte, Ember.js, React, Flask, FastAPI, Firebase, MongoDB, PostgreSQL