# Owen Ratgen

## Minneapolis, MN

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### EDUCATION

## University of Minnesota

Minneapolis, MN

Expected Graduation: December 2025

Master of Science in Computer Science
• Cumulative GPA: 3.915

Bachelor of Science in Computer Science

September 2020 - May 2024

• Cumulative GPA: 3.633, Technical GPA: 3.569

## EXPERIENCE

## Software Engineering Intern

May 2024 – Present

Trane Technologies | TypeScript, React.js, Jest, MUI, GitLab

St. Paul, MN

- $\bullet$  Built an internal frontend library to standardize React components and applications across various internal tools, resulting in a 27% decrease in page loading time due to efficient component design and lazy loading strategies
- $\bullet$  Decreased backend feature development time by 40% through simple, reusable components and applications
- Adopted by 5+ other teams within the company enhancing cross-team collaboration and consistency

## Software Engineering Intern

June 2023 – December 2023

SPS Commerce | TypeScript, Python, GraphQL, Node.js, Jest, GitHub

Minneapolis, MN

- Streamlined TypeScript application by introducing GraphQL, led to an 80% increase in developing efficiency
- Led efforts on refactoring code from Gramps to Apollo Server on a team of 3 other interns
- Enriched application by migrating and adding a total of 23 data sources to enhance query management

## Software Development Intern

June 2022 – August 2022

Infor | JavaScript, Java, JUnit, SQL, Git

Remote

- Developed a client facing process monitoring tool for user-inputted information, reducing the time users spent searching for orders by 50% through a centralized filtering system
- Performed integration testing using JUnit for 15+ different features in order to ensure feature functionality

## PROJECTS

Virtual Pantry | Azure, React.js, Node.js, Bootstrap, GitHub

March 2024 - May 2024

- Deployed a dynamic web application onto Azure to help assist users with meal planning by utilizing ingredients available in their pantry
- Leveraged REST API to fetch recipe data from Spoonacular API, parsed through the JSON, and stored over 10,000+ entries in Azure Cosmos DB
- Enhanced user experience through an intuitive user interface using React.js and Bootstrap libraries

## Social Media Caption Classifier | Python, TensorFlow, PyTorch, Pandas

September 2023

- Engineered a BART model featuring one-hot encoding and tokenization to effectively classify a caption from a result of a sports game as either a win, loss, or overtime loss
- $\bullet$  Curated the training dataset with relevant data and achieved an overall accuracy of 76.67%

### TECHNICAL SKILLS

Experienced Languages: Python, Java, JavaScript Frameworks: React.js, Node.js, Flask, Jinja2, Jest, JUnit Developer Tools: Azure, Docker, Jira, GitHub, GitLab

#### LEADERSHIP

## Academic Chair

January 2024 – Present

The Beta Pi Chapter of The Beta Theta Pi Fraternity

Minneapolis, MN

- $\bullet$  Increased Chapter GPA by 13% by creating an academic competition within the fraternity and setting up plans for members who did not meet the GPA requirement
- Cultivated academic growth by holding 3 separate workshops per semester for the chapter showing them the useful resources that the University of Minnesota has to offer