

Thomas Knickerbocker

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SUMMARY: A highly efficient and personable problem solver with strong experience and a breadth of proficiency in technology searching for stimulating and meaningful software or data science work.

EDUCATION

Masters of Science, Computer Science
M.S. Minor, Management of Technology

University of Minnesota, Twin Cities
Exp. May 2025

Bachelor's of Science, Computer Science
GPA: 3.57 / 4.00

University of Minnesota, Twin Cities
Sep. 2020 - Dec. 2023

- 3x Dean's List Recipient
- Committee Chair, AI Applied Club

EXPERIENCE

Software Engineering Intern, Optum, Eden Prairie, MN *Jun., 2023 – Aug., 2023*

- Thrived in a dynamic cross-functional, strictly deadline-driven team environment.
- Developed a hosted and multithreaded internal python-based LLM chatbot, estimated to save 48% of response time for employee questions, equating to an estimated \$800,000 annually.
- Led the integration of APIs such as SharePoint into an automated pipeline, streamlining the retrieval and analysis of 10,000+ company documents weekly, enhancing project efficiency.

Software Engineering Intern, Optum, Eden Prairie, MN *Jun., 2022 – Aug., 2022*

- Attained the highest achievable performance review score, placing in the top ~5% of interns.
- Worked one on one with an accountant to automate multiple financial reports using Python and SQL
- Helped in creating a full-stack application to be used by thousands of clinicians, employing Angular and Java Spring Boot.

PROJECTS

Schedule Builder *Feb. 2023 - Aug. 2023*

- Solely made a beautiful full-stack application using Nodejs, Fetch API, jQuery, and SQL.
- Empowered users to securely create accounts and then make, edit, and visualize their schedules.
- Enables users to visualize real-time stock data via AlphaVantage API and Matplotlib.

Image Neural Network *Mar. 2023 - June 2023*

- Created a Convolutional Neural Network utilizing PyTorch, NumPy, Seaborn, Pandas, and Sci-kit Learn.
- Trained on 50,000+ images using train-test split and one-hot encoded classes.
- Exploits a contemporary ResNet architecture, achieving an impressive 80% accuracy on the CFAIR-10 dataset and exposes incorrectly classified images as well as common misclassification patterns.

Recipe & Pantry Tracker *Mar. 2024 - Present*

- Developed a responsive react app enabling users to create a virtual pantry, save recipes for later use, and modify existing recipes to their liking
- Utilizes an Azure NoSQL mongoDB backend with full CRUD functionality & API integration

LANGUAGES, SKILLS, & PERSONAL TRAITS

Languages: Python, JavaScript, HTML, CSS, C, C++, Java, TypeScript, JSON, XML

Skills: React, Node, REST APIs, Azure, AWS (cloud prac certified), PyTorch, Pandas, Keras, Kubernetes, Jenkins, Postman, Terraform, GitHub, Jira, Linux, pytest, JUnit, Flask, PostgreSQL, MongoDB, SCRUM, SysDesign

Traits: Friendly, Adaptable, Hard-working, Passionate, Reliable