

Alan Hagedorn

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EDUCATION

University of Minnesota

Twin-Cities, MN

Bachelor of Science in Computer Science, 4.0 GPA

Graduation expected in 2023

Relevant Coursework: Intro to Data Structures and Algorithms, Intro to Machine Architecture, Discrete Mathematics, Advanced Programming Principles, Algorithms and Data Structures

EXPERIENCE

Dropbox

May – Aug 2022

Incoming Software Engineer Intern

San Francisco, CA

- Incoming Software Engineer Intern

Modern Treasury

Jan – May 2022

Software Engineer Intern

San Francisco, CA

- Developing full-stack web solutions using **Ruby**, **React**, **GraphQL**, and **TypeScript** for financial transactions
- Reduced technical debt for reporting and permissions by implementing customer-requested features and reactors
- Collaborated with other engineers to help automate billing jobs, reducing the work of the finance team
- Leveraged **GraphQL**, **Apollo**, and **React** to modernize multimedia file uploads
- Wrote unit and feature tests to ensure a consistent, bug-free user experience

PROJECTS

SkateShare | *Kotlin, Dagger Hilt, Firebase, SQLite, Maps APK, LeakCanary*

Jul – Sept 2021

- Developed an MVVM android app for users to record and share electric skateboarding routes
- Used Firebase for an infinitely-scrolling feed of media posts, customizable user profiles, and route sharing
- Utilized geospatial queries with Firestore for saving and sharing routes to a global map
- Used Room, SQLite, and MPChart to save and visualize data from private routes
- Used De Boor's B-Spline algorithm to smooth and interpolate raw route data
- Was exposed to android development, MVVM architecture, dependency injection, Firebase, and geo queries

Grade Analysis and Visualization Webapp | *Python, Django, PostgreSQL*

Apr – Jun 2021

- Developed a web application for professors to upload, analyze, and visualize course data
- Implemented grading curve suggestions and future assignment predictions based on past scores
- Acquired database skills by writing and refactoring models, improving performance
- Was exposed to Django, Pandas, SQL, CRUD applications, and Bootstrap4

Live Energy Monitor | *Python, Flask, PostgreSQL*

Aug - Sept 2021

- Developed a website that displays real time and historical energy usage.
- Built a basic API endpoint with Flask to implement HTTP requests with ESP32 microcontrollers to collect data.

Conway's Game of Life (Android) | *Kotlin*

Aug 2021

- Developed an app that allows players to explore Conway's Game of Life.
- Features drawing of cells, allowing users to visualize the algorithm in real time.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, HTML/CSS, Kotlin, Ruby, OCaml

Database Experience: PostgreSQL, SQLite, Firestore (No-SQL)

Developer Tools: Git, GitHub, IntelliJ, Android Studio

HONORS AND AWARDS

Eagle Scout

Nov 2020

- Participated and helped lead in a Boy Scout troop for 5 years
- Served local and global communities through over 70 hours of service projects.

Dean's List

- Present on the Dean's List (2019-2020) at Concordia University, and at the University of Minnesota (2021).