

Alan Hagedorn

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EDUCATION

University of Minnesota

Bachelor of Science in Computer Science

Twin-Cities, MN

Graduation expected in 2024

University of Minnesota

Dual Enrollment, 4.0 GPA

Twin-Cities, MN

Sept. 2019 – May 2021

Concordia University

Dual Enrollment, 4.0 GPA

St. Paul, MN

Sept. 2019 – May 2020

TECHNICAL SKILLS

Technical Skills: Python, Java, Kotlin

Web & Design: HTML5, CSS3, Bootstrap4, Django

Database Experience: PostgreSQL, SQLite, Firestore

Developer Tools: Git, GitHub, VS Code, IntelliJ, Android Studio

PROJECTS AND EXPERIENCE

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

July 2021 – Present

- 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 Prediction Webapp | *Python, Django, PostgreSQL*

April 2021 – June 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

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

August 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.

Digital Resume | *HTML, CSS3, Bootstrap4*

July 2021

- Developed a github.io portfolio site for displaying projects in depth and a some information about me!

Four Key Osu! Mania Bot | *Java, Robot*

April 2021

- Developed a bot which plays Osu! Mania with near 100.00% accuracy, higher than the current global record.

HONORS AND AWARDS

Eagle Scout

November 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).