

# Joe Qiyu Han

☎ 601-201-2458 | ✉ [qiyu\\_han@brown.edu](mailto:qiyu_han@brown.edu) | [in linkedin.com/in/qiyu-joe-han/](https://www.linkedin.com/in/qiyu-joe-han/)

[github.com/Fashionablylatte](https://github.com/Fashionablylatte) | [fashionablylatte.github.io/](https://fashionablylatte.github.io/)

Scala | Java | Python | C | SQL | TypeScript | JavaScript

## Education

### Brown University — Sc.B. Computer Science Candidate

Anticipated Graduation: May 2022

- > GPA: 3.6
- > Selected Courses: Software Engineering, Design and Analysis of Algorithms, Discrete Math, Computer Systems, Deep Learning, Linear Algebra
- > Teaching Assistant: Integrated Introduction to CS, Software Engineering

## Experience

### Amazon — Software Engineering Internship

Seattle, WA | Jun-Aug 2021

Software development in automated advertising and big data processing.

- > Designed a system for computing and processing advertisement bids for a third-party ad vendor.
- > Developed a performant bid processor using the Apache Spark framework, with > 1 billion daily worldwide input data rows.
- > Constructed a fully automated CI/CD pipeline using AWS CDK, for handling code changes and syncing bid job definitions.
- > Utilized database technologies including Redshift SQL to analyze data in context of business requirements.

### C Spire — Software Engineering Internship

Remote | Jun-Aug 2020

Software development in APIs, middleware and internal tools with direct customer impact.

- > Expanded an internal diagnostics and data management tool to handle a new type of deferred payment plan for fiber and cellular customers impacted by Covid-19.
- > Created an interface for non-technical staff to directly edit payment plans, eliminating the need for Database Administration's involvement in daily management.
- > Augmented order auditing batch processes to better account for special customer circumstances, catching certain errors 3 stages earlier in the order pipeline and removing the need for manual adjustment.
- > Consolidated institutional documentation to facilitate onboarding for future interns.

## Projects

### Scala's Mate/Chessio — Hobby Project

Remote | Jun 2020-Present

A chess engine and a Lichess.org bot interface fully compliant with the Universal Chess Interface protocol.

- > Utilized open-source Scala libraries from Lichess.org to handle basic chess logic.
- > Created an engine-to-Lichess interface that is compatible with all UCI engines such as Stockfish and LeelaChess – interface is pending approval for listing under Lichess code base.  
[github.com/Fashionablylatte/chessio](https://github.com/Fashionablylatte/chessio)
- > Programmed a chess engine with optimizations such as alpha-beta pruning, Zobrist position hashing, and opening/endgame table lookup. [lichess.org/@/FashionablyBotA](https://lichess.org/@/FashionablyBotA)

### ReadMe — Best Use of Google Cloud 2020 Winning Team

Providence, RI | Jan 2020

A visual accessibility Android app made at Hack@Brown 2020. [github.com/Fashionablylatte/ReadMe-](https://github.com/Fashionablylatte/ReadMe-)

- > Conceptualized project idea to fill a service void and determined visual accessibility specifications.
- > Designed visually accessible home menu and sub-page infrastructure.
- > Integrated Google Firebase Machine-Learning kit for high-fidelity recognition of text in static images to enable dyslexic-friendly captioning and text-to-speech functionality.
- > Researched and resolved compatibility issues between deprecated libraries for Google Mobile Optical Character Recognition Kit and supporting resources for Firebase Text Recognition.

## Skills and Interests

- > Tools/Frameworks: Apache Spark, AWS CDK, Apache Maven, Tensorflow, Git, Heroku, Google Firebase ML, Android Studio
- > Interests: Chess, chess programming, teaching, aquariums, running