Hai Shi

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Education

University of Toronto (St. George) Toronto, ON
Bachelor of Science Computer Science Sep 2022 - Apr 2026 (Expected)

Relevant Coursework: *Data Structures and Analysis, Theory of Computation, Software Design, Software Tools and System Programming, Computer Organization, Statistics and Data Analysis*

Achievements: *Dean's List 2023*, *Hack The North 2021 Participant*

Experience

Headstarter AI Toronto, ON
Software Engineering Fellow July 2024 - Present

- Built 4 AI apps and APIs using NextJs, OpenAI, Pinecone, and StripeAPI
- Designed and developed projects with 3 engineering fellows using MVC design patterns

Projects

Rocket Player *Node.js, Javascript, Firebase, React*

- Innovatively created a music player as a team of two with integration to Youtube to MP4 API.
- Used React to create a responsive and intuitive front-end, with the features of a regular music player, along with the ability to save songs offline by saving songs to their computer.
- Created a backend using Javascript and Firebase that enabled users to login using Google authentication and save songs and playlists to access at any time and share with other users, and provided the ability to add songs directly from a Youtube URL using Node.JS and Axios.

ClassLynk *Google Maps Platform, Java, Firebase*

- Engineered a streamlined scheduling application, using Java and Google Maps Platform capabilities to generate optimal routes and display these routes as maps and timetables, and also utilizing Firebase for user data persistence.
- Created a highly modular and extendable codebase, following Object Oriented Programming concepts, SOLID principles, and Clean Architecture.

Ani-4-me *Python, Pygame*

- Developed an anime recommendation system using Python and the Pygame library, using user data such as their friend list and past ratings to generate new recommendations.
- Enhanced user recommendations by offering a customization system where users can pick preferences, resulting in highly accurate recommendations tailored for the user.

Minigolf game *C#, Unity*

- Created a minigolf game using C# and the Unity engine, creating custom functions for intuitive camera movement, player input handling, and management of the game loop.
- Implemented a highly adaptable and easily extendable power-up system, enabling effortless incorporation of new power-ups.
- Separated game and visual logic, allowing easier addition of features and better code readability.

Technical Skills

Languages:	*Python, Java, Javascript, C, C#, R, SQL, MIPS assembly*
Backend:	*Firebase, mySQL, NodeJS, Axios, MongoDB, Express*
Frontend:	*React, Bootstrap*
Developer Tools:	*Google Cloud, Git, Vite, Bash*
Other Tools:	*Microsoft Office, LaTeX, Unity*