Chris Fang

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Software Engineering (and Music!) Student @ UWaterloo

Work Experience

Full Stack Software Engineering Intern

May 2023 - Current

Pixlee Turn To (Newly acquired by Emplifi)

Toronto, ON

- Spearheaded migration of the core application to the newest Ruby on Rails version and overhauled application asset pipeline. (Ruby, Rails, PostgreSQL)
- Worked closely with the client-facing team to implement requested features and bugfixes directly for specific companies using React, Python, and Ruby.
- Patched various security vulnerabilities throughout the codebase, including multiple SQL Injection and Remote Code Execution vulnerabilities.

Full Stack Software Engineering Intern

January 2022 - November 2022

Jobox.ai

Palo Alto, CA

- Designed and implemented a new scalable user interface used to facilitate thousands of jobs daily utilizing a Java REST API, PostgreSQL, and Amazon Redshift.
- Developed and deployed a Natural Language Processing Machine Learning Model and Data Pipeline using Python, Spacy, Flask, Docker, and PostgreSQL.
- Redesigned and refactored crucial scheduling functionality to add server load balancing and job persistence using Java and Quartz Scheduler.
- Learned software development life cycles within a rapid prototyping and iterative Agile environment. (Git, Jira, and Confluence)

Software Developer Intern

May 2021 – Aug 2021

Postalgia Inc.

Markham, ON

- Completely overhauled the main production software by building a new full stack solution from the ground up using React, Axios, Spring Boot, and MongoDB.
- Built a data labelling application and integrated it with Amazon Web Services utilizing Python, S3, and EC2.
- Regularly diagnosed and updated the software and hardware on production robots. (Raspberry Pi, Arduino, GCode, and GRBL)

EDUCATION

University of Waterloo

September 2020 – Present

Waterloo, ON

• Cumulative GPA: 3.9

Projects

 ${\bf Orchonverter} \mid \textit{Numpy, Scipy, Pandas}$

Bachelor of Applied Science, Software Engineering

- Developed an open-source automatic audio-to-sheet music converter.
- Trained and implemented "pitch detection" and "line splitting" machine learning models from scratch.
- 1st Place Winner of the UWaterloo Computer Science Club x Data Science Club Project Program.

Smart Garden | MongoDB, ExpressJS, React Native, NodeJS

- Created a remote plant care and monitoring system using a Raspberry Pi, Arduino, and various environmental sensors.
- Designed and developed a full stack mobile application to allow for remote monitoring and to facilitate user requests.
- Integrated and presented the database information in real-time to display live plant growth to user.

SKILLS

Languages: Python, Java, C/C++/C#, CSS/HTML, JavaScript/TypeScript, Ruby, SQL

Frameworks: React/React Native, Express.js, Node.js, MongoDB, PostgreSQL, Ruby on Rails, Pandas/Numpy/Scipy Tools: Unity, Bash/Git/Github, AWS, VSCode