

# Han Xiao Chen

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## Skills

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**Fullstack:** Node.js, React.js, Gatsby.js, Express.js, GraphQL, Django, MongoDB, DynamoDB

**Technologies:** Linux, Git, AWS, Jenkins, Redis, Docker, Pandas, Matplotlib

**Languages:** Javascript, Typescript, Python, Java, C/C++

## Work Experience

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### Apple

*Toronto, Canada (Remote)*

SOFTWARE ENGINEER

*Jun. 2020 - Aug. 2020*

- Reduced runtime of data analysis program by **96%** by multi-threading statistical computations and optimizing **Pandas** usage
- Implemented PTR analysis within an existing data processing pipeline to screen hardware verification data and identify issues within the measurement system
- Wrote **Python** scripts to pre-process CSV data for data pipelines, as well as convert data between different specifications for cross compatibility between internal analysis tools
- Developed a modular performance benchmarking tool that can be easily leveraged in Jenkins pipelines to automate benchmarking code changes

### Capital One

*Toronto, Canada*

SOFTWARE ENGINEER

*Sep. 2019 - Dec. 2019*

- Led the design, development, and deployment of a telemetry system for internal packages, with features including a CLI tool, API, and email service
- Designed and built a REST API to monitor package consumers using serverless architecture on **AWS Lambda** with ALB/Route53 for load balancing and routing
- Developed reusable **React** components with 100% unit test coverage for Capital One's in-house UI library, reducing the size of frontend codebases by up to **60%**

### IBM

*Toronto, Canada*

SOFTWARE DEVELOPER

*Jan. 2019 - May 2019*

- Built a message broker using **Node** and **Redis**, enabling developers to post service-status notifications to the IBM Cloud web console quickly and securely using Slack
- Developed new front-end features in React for Open Toolchains, IBM Cloud's DevOps offering used by **20 million** developers
- Enhanced backend **Express** REST APIs and database schemas to block suspended users from accessing cloud resources, reducing costs related to unauthorized resource consumption

### Climax Media

*Toronto, Canada*

SOFTWARE DEVELOPMENT ENGINEER IN TEST

*May 2018 - Aug. 2018*

- Developed a React application to sort and organize test cases by priority, increasing the QA workflow by **20%**

## Projects

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### Messenger Insights

*Data analysis & visualization*

PYTHON • PANDAS • NODE • GATSBY • GRAPHQL

*Dec. 2019*

- Built a Python tool that utilizes Pandas and Matplotlib to graph trends in users' Facebook Messenger use based on CLI input
- Developed an interactive Gatsby site to dynamically query and visualize the processed data in an engaging manner

### Autocritic

*Natural language processing*

PYTHON • SKLEARN • NLTK

*Jan. 2019*

- Developed a web application that scrapes film reviews and leverages sentiment analysis to predict film ratings

### Watch Along

*Web app*

NODE • SOCKET.IO

*Aug. 2018*

- Built a content consumption platform that allows multiple users to watch online videos synchronously with each other

## Education

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### University of Waterloo

*Waterloo, Canada*

CANDIDATE FOR BASC IN COMPUTER ENGINEERING | 85% CUMULATIVE AVERAGE

*Sep. 2017 - Apr. 2022*