

CHENXIAO GUAN

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EDUCATION

Carnegie Mellon University

Master of Science in Information Technology - Privacy Engineering

Pittsburgh, PA

Dec 2020

University of Rochester

Bachelor of Science in Chemical Engineering (Computer Science Minor), GPA 3.65/4.00

Rochester, NY

May 2019

WORK EXPERIENCE

Glodon Company Limited

Software Engineer Intern

Jun 2019 - Aug 2019

Beijing, China

- Implemented a web application that automates the process of uploading files to a third-party platform for security checking using **Sprint Boot** and **JSP**.
- Increased the unit test line coverage of the back-end of a web application (around **5,000** lines) from **25%** to **85%**.
- Refactored the front-end part of the application, broke up giant components (around **3,000** lines) into small and maintainable components using the **Vue** framework.

Ministry of Community Safety & Correctional Services

Software Engineer Intern

Dec 2017 - Jan 2018

Toronto, Canada

- Implemented the document viewing part of an automatic online criminal intake web application.
- Used **PDF.js** and **Angular** for displaying documents, and built REST endpoints in the back-end using **J2EE** for retrieving documents from the database.

RESEARCH EXPERIENCE

Department of Computer Science

Xerox Research Fellow 🌐

May 2018 - May 2019

University of Rochester

- Explored how audio information contributes to video processing tasks, and how to encode audio features effectively.
- Built a deep learning model for solving video captioning problem using **PyTorch**.
- Increased performance metrics by **22%** using a developed baseline model.

PROJECTS

GCompass - software life cycle data visualization application

- A web application that visualizes software development life cycle data, and helps product managers to better understand the current status of the agile development team.
- Utilized **Vue** as the front-end framework, **Spring Boot** for building REST APIs in the back-end, **MySQL** with **MyBatis** as the database and mapper, and **Jest** & **TestNG** as the testing framework.

FileShare - team project management application

- A web application that makes school/team projects easier to manage by supporting file upload, preview and comment.
- Used **React** with **Redux** for the front-end development, **C# (.NET Core)** for building REST APIs, **SQLite** for the database along with **EntityFramework** ORM, and **SignalR** for implementing WebSocket.

Favor (Hackathon Project) 🌐 🏠 - convenient residential community platform

- A platform designed to help community tool sheds building and managing.
- Leveraged **Google Maps JavaScript API** for rendering maps, and geocoding API for parsing users' addresses.
- Implemented with **Node.js (Express.js)** for the server, **MongoDB** as the database, and scaffolded the project with the MVC design pattern.

TECHNICAL SKILLS

Programming Languages: Java, JavaScript (TypeScript), Python, C# (.NET Core), C/C++, Golang

Web Development: HTML, CSS, JQuery, React (Redux), Angular, Vue (Vuex); REST, GraphQL, RDBMS, NoSQL

Numerical Analysis and Machine Learning: numpy, scipy, matplotlib, pandas, pytorch, tensorflow

PUBLICATION

🏠 Tian Yapeng, **Chenxiao Guan**, Justin Goodman, Marc Moore, and Chenliang Xu. "An Attempt towards Interpretable Audio-Visual Video Captioning." arXiv preprint arXiv:1812.02872 (2018). (submitted)