JUNSHANG JIA

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EDUCATION

Carnegie Mellon University   Aug 2023 - Expected Dec 2024

Master of Science in Information Networking

Relevant Coursework: Computer Systems, Machine Learning, Networking and the Internet

No sponsorship needed(Green Card holder)

University of Pittsburgh   Aug 2019 - May 2023

Bachelor of Science in Computer Science;

GPA: 3.91/4.0; Major GPA:3.95/4.0;

PROFESSIONAL EXPERIENCE

Software Developer Intern   Jun 2021 - Sep 2021

Ericsson   *Beijing, China*

- Conducted and implemented a cutting-edge, web-based management system to optimize the product development lifecycle of 5G radio base stations and increase overall product quality by using **Java**.
- Designed an ER diagram based on thorough product documentation, successfully implementing a **MySQL** database with optimized indexing and schema design, resulting in a **40%** increase in database query performance.
- Developed a dynamic web application using **Spring Boot** framework and **RESTful APIs** that allowed users to manage millions of data using CRUD operations.
- Engineered highly interactive frontend visual interfaces using **React** and **Antd** framework, incorporating dynamic features to enrich user interactions in search and information checking behaviors.

PROJECTS

Opensoundscape

- Contributed an **open-source machine learning library**, OpenSoundscape, that allows users to select the magnitude or power of the Spectrogram and generate specific formats of annotation files using **Python**.
- Constructed a comprehensive set of meticulous test cases to ensure the thorough testing of software functionalities and effectively identify any potential bugs or issues that may arise during the development process.
- Collaborated with team members in the development process by posting pull requests and engaging in discussions to review and enhance code quality and project outcomes.

Metis

- Built a forum to help people better judge whether information is misinformation, utilizing React and Python.
- Utilized React to develop an intuitive and responsive login page, seamlessly integrating a Google account login. feature using **Google APIs**, enhancing user convenience and authentication options.
- Implemented comment features using **Flask** and MySQL, allowing users to reply and vote, promoting interactive discussions and engagement.

Memory Allocator

- Designed and implemented a memory allocator from scratch for efficient memory management using **C**.
- Applied various strategies(segregated free list, explicit lists, and memory alignment) to mitigate fragmentation.
- Created a robust and efficient memory allocation algorithm that outperformed existing solutions by improving memory utilization and throughput by an impressive **70%**.

SKILLS

Java C Python React TypeScript Haskell Linux Git SpringBoot MySQL PyTorch GCP Docker NoSQL