

ZIFENG (ALLEN) AN

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EDUCATION

University of California, Berkeley
Master of Engineering in Computer Science

August 2023 - Expected Graduation May 2024

Relevant Courses: Deep Learning (CS282), Deep Reinforcement Learning (CS285)

McMaster University, Canada
Double Major: Software Engineering & Biomedical Engineering

September 2017 - May 2023
GPA: 3.9

WORK EXPERIENCE

Software Engineer Intern (Frontend) @IBM, Toronto

May 2022 - Aug 2022

- Conducted frontend development with **Typescript** and **React** for IBM Cognos Analytics - a data analytics platform.
- Developed frontend interactive features in **Docker** environments using IBM React Carbon components. Ensured adaptive rendering and accessibility across different themes and platforms to improve user experience.
- Created unit tests using **Enzyme** and **Jest** to increase unit test coverage from 60% to 96%.
- Utilized **Jenkins** CI/CD for deploying the latest build and investigating pipeline build failures.

Application Developer (Backend) @ CIBC, Toronto

May 2021 - May 2022

- Developed API endpoints using **Django** as proof of concepts for backend log processing. Tested with **microservices** to improve scalability and presented to stakeholders as a Minimum Viable Product.
- Developed and optimized complex **Splunk queries** to produce statistical analysis and data visualizations (dashboards, reports and alerts) to meet the needs of Incident Management, and Alert System teams.
- Implemented proof-of-concept prototypes using Splunk **Machine Learning** Toolkit for customer segmentations and page recommendations to deliver customized targeted promotions.

Computer Science and Math Teaching Assistant, McMaster University

September 2018 - May 2023

- Courses: Database, Software Design, OOP, Principles of Programming, Discrete Math, Linear Algebra, Calculus
- Developed unit testing scripts and selenium scripts to evaluate 200+ student's programming assignments and automatically submit the marks to the online school grading system.
- Conducted exam reviews in front of 200+ students and provided tailored private tutoring
- Received acknowledgements from students for outstanding communication skills and detailed explanations on perplexing and abstract concepts.

PROJECTS

Finetuned InstructPix2Pix Diffusion Model, UC Berkeley

2023

- Led the enhancement of the InstructPix2Pix model for human face colorization, fine-tuning it with the IMDB-WIKI dataset and GPT-generated prompts, achieving more realistic colorization. [\[Link\]](#)
- Focused on selectively freezing model components and **fine-tuning** the U-Net for image latent denoising. Developed a deep understanding of VAE and diffusion model architectures.

Hearing Test Mobile App, McMaster University with Dr. Rong Zheng

2022

- Developed a cross-platform mobile app with **Flutter**. It served as a pre-screening tool to provide users with 3 hearing tests - pure tone audiometry test, digits in noise test and a custom-designed spatial sound test. The application was delivered to 30 patients within the community and collected relevant results and feedback.
- Implemented a full stack application with **Express** backend. Designed intuitive data visualization for users' hearing test results and provided assessment reports based on the standard benchmark audio lab results.

SKILLS

- JS/TS | Python | Java | C/C++ | Node | Express | Django | PyTorch | Flutter
- Proficient in: English, Mandarin, Shanghaiese