ZIFENG (ALLEN) AN

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EDUCATION

University of California, Berkeley   *May 2023 - May 2024*
Master of Engineering in Computer Science
GPA: 3.9+ | **Courses**: Parallel Computing, UI/UX, Computer Networks

McMaster University, Canada   *September 2017 - May 2023*
Double Major: Software Engineering & Biomedical Engineering
GPA: 3.9+ | **Teaching Assistant**: Databases, Software design, Programming principles

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.
- Interfaced with design teams using IBM React Carbon components. Deployed services in **Docker** containers and speed up loading time by 15% across different browsers and platforms. Ensured adaptive rendering and accessibility across different themes to improve user experience.
- Increased unit test coverage to 96% using **Enzyme** and **Jest**. Worked on IBM **Cloud infrastructure** and utilized **Jenkins** CI/CD for deploying the latest build and investigating pipeline build failures.

Backend Software Engineer@ CIBC, Toronto   *May 2021 - May 2022*

- Developed API endpoints using **Django** with **Redis** as proof of concepts for backend log processing. Tested with **microservices** to improve scalability and presented to stakeholders as a Minimum Viable Product.
- Utilized **EKL**, **Grafana**, and optimized **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 private tutoring. Received acknowledgements from students for outstanding communication skills and detailed explanations on perplexing and abstract concepts.

PROJECTS

Finetuned IntructPix2Pix 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 | NextJS | Django | PyTorch | Flutter | Jira | Agile
- Proficient in: English, Mandarin, Shanghainese