Jiayi(Fabe) Zeng

+1 4374243362 | zengjiayifabe@gmail.com
LinkedIn: www.linkedin.com/in/jiayi-zeng-0207 |
GitHub: https://shURenZHOUluxun.github.io

EDUCATION

University of Toronto Sep 2023 - Sep 2024
Master of Engineering Toronto
- Related courses: Machine Learning, Deep Learning, AI in Finance, Data Science, Data Analytics, Project Management

University of Toronto Sep 2018 - Jun 2023
Degree: Honors Bachelor of Science Specialist: Computer Science Minor: Mathematics Toronto
- Related courses: Software Design, Software Tools and Systems Programming, Programming on the Web, Database Management, Computer Graphics, Geometry Processing, Computer Networking Systems

SKILLS, TOOLS & OTHERS

- **Skills:** Python, JavaScript, TypeScript, HTML, CSS, Java, SQL, C/C++
- **Frameworks:** PyTorch, TensorFlow, scikit-learn, Keras, Three.js, Babylon.js, Vue.js, React.js
- **Tools:** NumPy, Pandas, OpenCV, Matplotlib, Seaborn, Jupyter Notebook, Git, Webpack, Firebase, Auth0, Linux

PROJECT EXPERIENCE

AI Model Evaluation & Comparative Analysis Project Aug 2025 - Oct 2025
- Evaluated 500+ model responses across 7 rating dimensions (Localization, Instruction Following, Truthfulness, etc.) to ensure comprehensive quality assessment.
- Maintained a consistency rate above 95% with reviewer ratings, reflecting strong adherence to evaluation guidelines.
- Strengthened prompt analysis, critical reasoning, and cross-locale evaluation skills while contributing to human-in-the-loop model alignment research.

Deep Learning–Based Food Image Classification System Jan 2024 - Apr 2024
Toronto
- Built a high-accuracy image classification system to recognize 50+ categories of Chinese dishes, achieving 90%+ top-1 accuracy in real-world testing.
- Applied transfer learning with **ResNet and Vision Transformer (ViT)** architectures, enhancing performance on complex visual patterns specific to Chinese cuisine.
- Designed and fine-tuned a custom **CNN architecture** optimized for detecting nuanced textures and features in food images.
- Conducted extensive data preprocessing and augmentation (rotation, color jitter, normalization), improving model generalization and training speed by 30%.
- Optimized training pipelines with early stopping, learning rate schedulers, and mixed precision training, resulting in faster convergence and increased model stability.

PROFESSIONAL EXPERIENCE

Toronto Elite School Jun 2024 - Apr 2025
Academic Advisor Toronto
Administrative & IT Support
- Implemented OCR and AI-powered automation tools to streamline document processing, reducing paperwork handling time by 70% and improving team efficiency by 50%. Using Latex to process test papers.
- Provided IT consulting for faculty and staff, resolving 95% of technical issues within the first response.

EduTrigger Inc. Jul 2023 - Feb 2024
Front-end intern Toronto
- Developed and implemented authentication and authorization functions using **Vue.js and Auth0 platform**, ensuring a secure and user-friendly experience for Victoria Eclass users.
- Utilized **Firebase Database** to store and analyze chat data, contributing to data-driven decision-making.
- Built a Learning Management System (LMS) and Content Management System (CMS) platform for an educational client based on the **OpenEdx platform**.
- Investigated and documented the installation process and steps to run the platform from scratch, providing a valuable resource for new OpenEdx developers and **saving 50% of their time**.
- Conducted **front-end development** based on the OpenEdx platform, collaborated closely with the UI design team to enhance the user interface and improve the overall user experience.

Tencent Jun 2021 - Jun 2022
Front-end intern WeMap-Tencent Beijing, China
- Utilized the **Three.js** framework, combined with the base map data, achieved the automatic generation of stylized buildings by type, which improved the attractiveness of the map.
- Oriented to Keep company, corresponded to the motion track sharing scene, developed the screenshot function based on native **JavaScript and html2canvas library**, which improved the user's development **efficiency by nearly three times.**
- Based on **Three.js**, migrated the functions of the old engine for the map to the new engine, optimized code logic, reduced the coupling relationship between modules, and enhanced the readability of code.
- Connected the map engine to the **Blue Whale DevOps CI/CD pipeline** and **TKE container service** platform to realize the automatic construction and deployment of services, and improved development **efficiency by 70%** when deploying new versions.
- Based on **NeRF(neural radiation field)**, achieved the 3D reconstruction of a simple scene in a short time, and laid a solid foundation for the subsequent 3D reconstruction of a large scene. Used **Google Colab** to integrate code and command line, **saving 90% of the running time cost**.