Yuedi (Eddy) Liang

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LinkedIn: linkedin.com/in/yuedi-liang || Portfolio: emericen.github.io || GitHub: github.com/Emericen

EDUCATION

University of Southern California Aug 2021 – Dec 2022
M.S. in System Architecting and Engineering, Data Science Track

The Ohio State University Aug 2016 – May 2020
B.S. in Computer & Information Science, Artificial Intelligence Track

SKILLS

- Programming Languages: Python, Java, JavaScript
- CSS Frameworks/Tools: PyTorch, Flutter, React, AWS, GCP, MongoDB, Firebase

WORK EXPERIENCE

BrainCo **Boston, MA**
Software Engineer Intern Aug. 2022 – Dec. 2022
- Built data-centric infrastructure to accelerate ML lifecycle and allowed R&D to design customized experiments
- Implemented data labeling **Flutter** mobile app in MVVM architecture that connected with hardware devices
- Labeled brain emitted EMG, EEG signals with AR facial and body movement capturing and other native inputs

Flashcard **Urumqi, China**
Full Stack Engineer / Co-Founder Oct 2020 – Jul 2021
- Co-Founded an online platform to facilitate one-on-one English tutoring during COVID-19 social distancing
- Created cloud MongoDB database hosted by Tencent Cloud, and offered backend services through Rest API
- Designed website with **React**, deployed with **Node.js**, and achieved peak DAU of 40+ students

GF Securities **Guangzhou, China**
Frontend Software Engineer Aug 2020 – Dec 2020
- Maintained the company portfolio management software frontend built in **React** and deployed on Alibaba Cloud
- Upgraded input form by introducing component library AntD to replace barebone HTML and CSS
- Automated Excel financial statement uploaded, reducing manual work by 75%

PERSONAL PROJECTS

Mini-GPT: Generative Text Transformer (GitHub: https://github.com/Emericen/mini_gpt)
- Implemented self-attention, and multi-head attention units in PyTorch
- Utilized tokenization and embedding techniques to prepare input data for the model
- Successfully trained a decoder transformer model with 10M+ parameters to generate random Shakespeare-like texts

Generative Diffusion Model for Fake Faces (Demo: emericen.github.io)
- Built forward and backward diffusion process to add noise to images
- Created simplified U-Net with embedded timestep in PyTorch for image restoration
- Scraped 30,000 fake face images from thispersondoesnotexist.com to use as the training set
- Achieved reasonable fidelity with training done on personal RTX 3060 GPU

Airbnb Clone: A Location-Based Home Search (GitHub: https://github.com/Emericen/staybooking-backend)
- Built user authentication, location-based searching, date confirming, and checkout
- Used React for frontend and Spring for backend. Connected both using Rest API written in Node.JS
- Deployed with Docker on AWS, and utilized geo-location-based Elastic search provided by GCP

HACKATHON EXPERIENCE

2023 Scale AI LLM & Generative AI Hackathon
- Created a chat-based browser bot that acts on abstract language commands, similar to Adept.ai's action transformer
- Gathered team of 6, and utilized prompt engineering on GPT-3 to create prototype capable of summarizing emails

2020 HackOHI/O
- Built training data sampling Flutter app for ML that rewards users to contribute data such as pictures and audio
- With team of 4, gathered hand pictures among participants and trained gesture recognition model. Won 2nd place.