Xiangyi Li
Software Engineer in Shenzhen
xiangyi.li

About

Hi, it's Xiangyi. At SJSU, I'm currently taking CS 271 Topics in Machine Learning, CS 256 Topics in Artificial Intelligence, and CS 153 Compiler Design. Outside of class, I'm continuing a Law Copilot project with @willdiamonds after a Hackathon at Stanford Law.

Education

2019 — 2023

Master of Science in Computer Science at San José State University
San Jose, CA

Required courses may include: Design and Analysis of Algorithms, Advanced Computer Architecture, Advanced Parallel Processing, Distributed Computing, Topics in Cloud Computing, Cryptograph and Computer Security, Computer Game Design and Programming, Concepts of Compiler Design

2019 — 2023

BEng in Computer Science at Chinese University of Hong Kong, Shenzhen
Shenzhen, China

Core Courses: Calculus, Linear Algebra, Probability, Statistics, Optimization, Discrete Math | Data Structure and
Algorithm, Operating System, Computer Architecture, Database, Cloud Computing, Parallel Programming, Digital Circuits Fundamentals | Machine Learning, Advanced Machine Learning, Deep Learning, Speech and Natural Language Processing, Data Mining.

Work Experience

2023 — 2023

Windows PC Entertainment Platform Developer Intern at Dolby Laboratories
Shenzhen

Feb 2023 - Apr 2023
• Implemented Dolby Vision PC ICM generation SDK with .NET Core and support portal with Blazor.
• Improved the UI/UX & API Design for Dolby Vision support portal with ASP.NET, jQuery, and Vue.js.
• Finished twice as many features/issues as my team anticipated before my onboarding.

2022 — 2022

Software Engineer Intern at Red Hat Inc
Beijing

May 2022 - Aug 2022
• Built OpenShift Operators with Operator SDK in Golang which impacted >50 user issues and test cases.
• Built OpenShift Console Plugins with React and TypeScript that impacted two major releases.
• Built department-wise collaborative dashboard and editor in React and SQLite impacted >200 people.
• Involved in quality assurance of the OpenShift console, focusing on automating test cases with Cypress.
• Contributed to OpenShift related projects; responsible for debugging Jenkins CI and fixing Ruby scripts.

2022 — 2022

Research Assistant at Chinese University of Hong Kong, Shenzhen
Shenzhen

Feb 2022 - May 2022
• Built a C++ library based on HDF5 that reads and parses massive volumes of hierarchical data in parallel.
• Developed parallel CCA algorithm in C++ and NumPy; also, gradient descent algorithm in NumPy.
• Distributed the NumPy implementation workload using the Dask library and the C++ with MPI.

2022 — 2022

Software Engineer Trainee at Tencent
Shenzhen

Jan 2021 - Feb 2021
• Implemented feature engineering and data augmentation for videos based on pix2pix and TensorFlow.
• Participated in model training & serving with TensorFlow Serving; exposed APIs for the RSD to consume.

2021 — 2021 Contract Full-stack Developer at Like Education
Shenzhen

Jun 2021 - Aug 2021

- Built a landing page, article page, social page, admin page, and rich-text article editing/publishing page with React, Node, and MongoDB.
- Integrated the admin article publishing page with Notion, so my client was able to sync between his Notion documents and the admin page seemlesssly.

2021 — 2021 Research Assistant at CUHK-SZ
Shenzhen

Jul 2021 - Aug 2021

- Responsible for optimize the data tracking within a video playing component for a research project of Prof. Zhang. (sme.cuhk.edu.cn/en/teacher/182).
- Responsible for optimize performance for a image heavy website for data tracking. Responsible for compressing assets on the server.

2021 — 2021 Software Engineer Intern at Synovate
Shenzhen

Jan 2021 - Feb 2021
• Implemented an interactive heatmap component with D3.js and Vue.js; built a desktop app with Electron to boost clients' satisfaction.
• Implemented a C++ library on Raspberry Pi 4 to to handle general-purpose input and output (GPIO) for the company's sensor.

2020 — 2020 Python Developer Intern at Wholeselect
Jun 2020 - Aug 2020
• Implemented and deployed web scrapers with Puppeteer; set up Chron jobs and Google Sheets on GCP.
• Developed Puppeteer extensions and scripts to circumvent bot detection mechanisms.

Side Projects

2023 PadCoder
A React Native iPad LeetCode client. The project was sold to an anonymous startup. Only an early stage of the project is kept.

Projects

2023 Pascal Interpreter & Compiler at San Jose State University
Wrote the frontend, intermediate, and backend of the compiler in Java.

2023 Multi-cycle pipelined CPU in Verilog at Computer Architecture Course Project

2023 VOC2012 Object Detection Task at Deep Learning and Applications Course Project
• Implemented traditional object detection algorithms with OpenCV with manual feature selection.
• Trained & fine-tuned STOA models including Faster R-CNN, SSD, and YOLO to compare performances.
• Wrote Bash scripts to train and log results after individually setting up cloud GPU resources.
(The repo was private due to the setting of GitHub Classroom)

2023 ChatGPT Detector at Speech and Natural Language Processing Course Project
• Reproduced a RoBERTa ChatGPT/Human text classification model from a paper achieving >0.999 acc.
• Set up multiple LLM APIs and on-device models to produce more training text which achieved better generalizing performance over the baseline model.
(The repo was private due to academic requirements and the setting of GitHub Classroom).

2022 Kaggle Feedback Prize Silver Medal
• Implemented data preprocessing with NLP techniques like tokenizing, normalizing, and padding.
• Iterated pre-trained models like BERT, DeBERTa, and RoBERTa and parameters and got a silver medal.

2021 Operating System Course Project
• Implemented components OS including process in kernel, threading with lock, memory virt, IO, and fs.
• Implemented algorithms like deadlock avoidance, resource alloc, CPU scheduling, and page replacement.