Yuchen Liu

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Work Experience

Bloomberg - *Software Engineer - From 9/2023 to now*
- Optimized C++ backend that served stock index calculations with parallel processing, distributed caching, and created metrics dashboards and alarms
- Created UI data viewer and Python scripts for stock indices data to cut the time spent by the data quality team by 20%, using TypeScript, GraphQL, and NodeJS

Amazon - *Software Development Engineer Intern - From 5/2022 to 8/2022*
- Built API rate limiter with Java Spring and AWS for an endpoint with 6,000 TPS.
- Integrated rate limiter into the distributed system with integration tests, metrics, and A/B testing.
- Created continuous integration pipeline for cloud resources with AWS CDK in TypeScript.

Amazon - *Software Development Engineer Intern - From 6/2021 to 8/2021*
- Implemented an editor tool in React.js that gives Prime managers a 2x productivity increase.
- Created flexible APIs and scalable database tables in Java backend and AWS.

Samsung - *Software Engineer Intern - From 2/2021 to 5/2021*
- Built parallel Python and shell scripts for processing 20GB data reports with 30% speed increase.

Wortharead - *Software Engineer Intern - From 7/2020 to 9/2020*
- Designed highly reusable and cross-platform UI layouts and components with VueJS and Sass. Created RESTful APIs and designed indexes in DynamoDB that cut querying speed by 35%.

Projects

Vintage Chinese Cartoon Stable Diffusion fine-tuning
- Fine-tuned with LoRA on laptop hardware with quantization and HF Accelerator pipeline
- Created parallelized Python scraping and frame extraction script for training data, utilized BLIP and custom prompting on VLM for captioning. Used CLIP similarity score for evaluation

Bye DUO
- Creator and developer of a browser extension speedup NYU logins by 20%.
- Built with ReactJS frontend and Python backend, Nginx, and cost-effective cloud resources.

Meddit
- Initiated a reddit-like app for patients, using RESTful APIs in NodeJS and JWT auth.

Skills
- Programming: Python, NodeJS, Java, TypeScript, C++, Golang, ReactJS, VueJS, ReduxJS, Sass, HTML/CSS/JS, PostgreSQL, DynamoDB, Haskell, Pytorch
- Tools: Git, Bash, Amazon Web Services, CUDA, Spark

Education

BA in Computer Science and Data Science. Graduation 05/2023. New York University, NY
- Developer at NYU BUGS Open Source Club
- Courses: Parallel Computing, Fundamentals of Machine Learning, Artificial Intelligence, Deep Learning, Algorithmic Problem Solving, Causal Inference, Responsible Data Science