Raymond Luo

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EXPERIENCE

Culmination Bio
Aug. 2023 – Present

Full Stack Software Engineer
Remote, NY

- Delivered numerous core product features from 0 to 1, including scoping requirements, writing technical design documents, implementing **SQL**, **Python**, **TypeScript**, and **React** code, and presenting demos to stakeholders
- Designed and built backend architecture of flagship product using **Python** and **FastAPI**, scaling from a monolith to five microservices processing **millions of rows of data daily**
- Developed specialized data structure and API to efficiently filter and query massive datasets based on complex, multi-dimensional criteria
- Optimized backend functionality by parallelizing data processing workflows, **reducing processing time by 83%** and bringing speeds to **near real-time performance**
- Developed interactive data dashboards that automated feasibility studies, **reducing manual analysis time from days to a minute** and accelerating turnaround time with clients
- Led org-wide engineering quality initiatives, introducing best practices, eliminating 10K+ lines of dead code, resolving months-old tech debt, and delivering tools that powered chatbot development and partner content ops

Spectrum Labs
Jan. 2023 – May 2023/Jan. 2022 – May 2022

Software Engineer Intern, Guardian Moderation Queue
Remote, NY

- Implemented **e2e testing** with **Playwright**, saving minutes on manual testing, and integrated it into **CircleCI** for **CI/CD** with **TypeScript, Docker**
- Implemented role-based access control handled in **TypeScript** and **Vue** frontend and **Scala** backend with **gRPC**
- Improved internal efficiency and scalability by developing two features which **reduced turn-around-time by 98% (10 minutes → 10 seconds)**
- Implemented quality-of-life features which **saved users 10 minutes** per moderation session

Meta (Facebook)
May 2022 – Aug. 2022/June 2021 – Aug. 2021

Software Engineer Intern, Dating Ranking ENG/Cloud Gaming Infra
New York, NY

- Designed and implemented new candidate retrieval funnel for scalability, **reduced latency by 35%**, using **Hack**
- Created video-based analysis tool which **drove engagement up 10%** in third party developer's game, using **Hack**, **JavaScript**, and **React**
- Optimized clustering algorithm to avoid memory issues and **process 12x the volume of data**
- Experimented on computer vision script to **increase sample size of datasets by 20%**

Social27 Inc.
May 2020 – Aug. 2020

Data & AI Intern
Remote, WA

- Implemented latent feature matrix factorization model to address sparsity in recommender system with **LightFM**
- Owned coordination between three companies to produce 3000+ attendee virtual event as PM+CSM

EDUCATION

New York University
New York, NY

BA in Computer Science & Media Studies, Minor in Mathematics; Magna Cum Laude (3.92)
Sep. 2019 – May 2023

PROJECTS

Doggle: A Wasm Game | *Rust, Wasm, HTML, CSS, JavaScript*
June 2022

- Created Wordle-style dog-themed browser game with images and dynamic word lengths

Flower Shop: A Discord Ticketing Bot | *Python*
February 2022

- Created a Discord bot with friendly interface and UX for users to open tickets to speak with moderators
- Deployed bot to Heroku to run 24/7 for 5k+ member NYU Discord

TECHNICAL SKILLS

Languages: Python, SQL, Scala, Rust, Java, Hack/PHP, C
Frameworks: FastAPI, Flask, TensorFlow, Selenium, Nuxt
Frontend: HTML, CSS, JavaScript, TypeScript, React, Vue
Developer Tools: git, mercurial, bash, Docker, CircleCI, LaTeX