Youlong Ma

EDUCATION

Georgia Institute of Technology Atlanta, GA

- *M.S. in Computer Science* Dec 2024

TECHNICAL SKILLS

- **Languages:** Python, Java, C++, C, Go, TypeScript, JavaScript.
- **Libraries and Frameworks:** Scikit-learn, NumPy, SciPy, Pandas, React, React Native, PyTorch.
- **Technologies:** Unix/Linux, Git, AWS, Node.js, Next.js, TailwindCSS, SQL/NoSQL, Docker, Kubernetes, CI/CD, gRPC, Prometheus, MetricBeat, Elasticsearch, Fluentd, Kibana.

EXPERIENCES

EduPolaris AI Remote

Tech Lead & Software Engineer Aug 2024 - Present

- Designed system architecture, a highly scalable and available backend microservices managed by Kubernetes, unified frontend mobile app built by React Native, and frontend desktop/mobile web by React Web.
- Designed and developed prompt engineering services to connect multiple LLM API (ChatGpt, Claude and Gemini), this service provides personalized educational counseling.
- Designed and developed mobile apps on iOS and Android, the app is built by React Native. Collaborated with UX designer to iterate Figma designs with mobile app development.
- Designed and implemented multiple backend microservices using Go, the SLA is defined in Proto Buffers and communication between microservices is gRPC.
- Researched and integrated authentication solutions with AWS Cognito for enhanced security and seamless user experience.
- Deployed and managed Docker containers orchestrated with Kubernetes; developed and monitored using ELK Stack, Prometheus and MetricBeat for scalability and robust observability.
- Streamlined CI/CD pipelines, reducing deployment time by 50% and minimizing service disruptions during updates.

Amazon Detroit, MI

SDE Intern May 2024 - Aug 2024

- Developed a Java-based feature flagging strategy, enabling A/B testing for tier-1 services across multiple environments.
- Reduced API latency for 1000+ TPS traffic from 10 seconds to 0.05 seconds, resolving critical timeout issues.

U.S. Food and Drug Administration Silver Spring, MD

Research Fellow Nov 2017 - Oct 2022

- Led cross-disciplinary teams on 10+ new drug applications, contributing to improved drug safety and efficacy.
- Pioneered 3+ methodologies for assessing drug quality, adopted in ongoing FDA processes.
- Trained scientists and engineers from multiple centers in FDA on how to conduct research using microscopy, image processing tools and related software I designed.
- Delivered 20+ technical reports and published 6 articles in top-tier journals, advancing industry knowledge on biotherapeutics.