Michael W. Lu

About Me

I'm a software engineer and manager proficient in driving product direction and leading development efforts across multiple teams.

Combining self-taught programming skills with a finance background, I have a track record of delivering high-quality results, achieving consistent recognition and rapid advancement.

Pronouns: he/him

Skills

Technologies

JavaScript, TypeScript, C#, Python, SQL, HTML/CSS, REST API, Git, Bash, Jira, Figma

Frameworks & Libraries

React, Next.js, .NET, Entity Framework, React (TanStack) Query, React Hook Form, React Table, Bootstrap, Tailwind CSS, Jest

Certifications & Awards

Scaled Agile SAFe® 5 Practitioner

HackerRank Certificates: JavaScript, React, REST API, C#, SQL

Spatial Front Team Hackathons: 1st place – Oct 2021, Oct 2023; 2nd place – Apr 2021, Jul 2021, Apr 2022, Apr 2023, Jul 2023

Languages

English, Mandarin Chinese (conversational)

Interests

Weightlifting, menswear fashion, consumer technology, crosswords, cooking, mixology

Education

New York University | New York, NY
Stern School of Business, Class of 2013
Bachelor of Science in Finance & Economics

Contact

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- linkedin/michaelwlu

Experience

Spatial Front, Inc. ↗ | Remote | Feb 2021 – present
(Multi-contract government IT solutions provider specializing in geospatial services)
Team Lead/Architect (Apr 2022) | **Front-End Technical Lead** (Sep 2021) | **Software Engineer** (Feb 2021)

- Led software development on two systems for the U.S. Department of Agriculture, successfully deploying high-impact solutions critical to conservation missions and relied upon by 2,500 USDA field offices and 15,000 monthly active users
- Directed 20 professionals across two cross-functional teams, providing guidance and mentorship to engineers, testers, designers, business analysts, and scrum masters

Project: *Conservation Practice Documents - Document Management System* (.NET 6, React, MS SQL Server, MS SharePoint)

- Managed the turnaround of a stalled development initiative, re-aligning the team to deliver a long-awaited minimum viable product that replaced an outdated legacy system, while also saving $300,000 in annual licensing fees
- Designed a relational database schema to drive a workflow engine for publishing documents, enabling dynamic configuration of lifecycles for 15 unique workflows, 50 document types, and 36,000 documents

Project: *Field Office Technical Guide* (.NET Framework, React, MS SQL Server, Elasticsearch)

- Developed an enhanced search functionality built on Elasticsearch and maintained by a data synchronization strategy involving push updates and scheduled batch jobs, providing users with the ability to full-text search 160,000 documents
- Implemented multi-document batch operations, significantly increasing content management efficiency by enabling up to 25 simultaneous curation actions
- Modernized React codebase by converting components from class-based to functional, abstracting logic into reusable hooks, and streamlining state management, resulting in improved maintainability with a 78% reduction in component lines of code

Independent Project Work ↗ | New York, NY | Mar 2020 – Feb 2021

- Project: Definitely Not Reddit — Reddit clone with user authentication, content posts (text, embedded media, meta link previews), upvotes/downvotes, and comments
- Project: Melody Chuang Coaching — Life-coaching business website with contact forms and social media widgets

The Recurse Center ↗ | New York, NY | Jan 2020 – Mar 2020
(Community-driven, self-directed educational retreat)
Programming Sabbatical

- Self-studied programming fundamentals and full-stack web development in an immersive environment with 35 fellow programmers ranging from novices to experts
- Collaborated with peers in dozens of pair programming sessions and presented 3 talks to foster knowledge sharing and mutual growth

NYU Langone Health ↗ | New York, NY | Mar 2014 – Jan 2020
Senior Financial Analyst (Aug 2017) | **Financial Analyst** (Mar 2014)

- Oversaw financial management of research activities at the Neuroscience Institute, playing a pivotal role in expanding funding from $20M to $40M in 6 years
- Pioneered a proprietary financial modeling system using MS Excel, providing cutting-edge analytical and strategic decision-making capabilities to 32 research labs

Community

Code Nation ↗ | New York, NY | Oct 2022 – May 2024
(Non-profit providing coding education to under-resourced youth)
Volunteer Instructor

- Taught introductory web development to classes of 15-20 students at NYC public high schools in twice-weekly virtual and in-person sessions
- Built up competence and curiosity in students under-represented in tech, resulting in 67% of alumni entering a STEM-related field compared to 8% population baseline