

Michael W. Lu

About Me

Software engineer with 4 years of technical leadership experience, combining hands-on development expertise with the ability to drive product direction and mentor others.

Successfully modernized enterprise systems while delivering measurable performance improvements. Excels at translating complex business requirements into effective technical solutions.

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, TanStack Query, TanStack Table, React Hook Form, 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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Experience

Spatial Front, Inc. [🔗](#) | Remote | Feb 2021 – present

(Government-contract IT solutions provider specializing in geospatial technologies)

Technical Lead Manager (Apr 2022) | **Front-End Technical Lead** (Sep 2021) | **Software Engineer** (Feb 2021)

- Led software development of two systems (detailed below) for the U.S. Department of Agriculture, successfully deploying critical conservation-mission solutions 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, and business analysts

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

- Spearheaded the turnaround of a stalled development initiative, realigning the team to deliver a modernized system that retired legacy software and saved \$300,000 in annual licensing fees
- Architected a relational database schema powering a document publishing workflow engine that handles 60,000 documents across 16 configurable workflows and 53 document types

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

- Built an Elasticsearch-powered search engine that indexed 160,000 documents, enabling users to perform full-text searches across the entire document repository
- Designed and implemented batch operations, dramatically accelerating content management workflows by enabling 25 simultaneous actions
- Modernized the entire React codebase by migrating to functional components and custom hooks, achieving 78% reduction in average component size while improving maintainability

Independent Project Work [🔗](#) | New York, NY | Mar 2020 – Feb 2021

- Project: Definitely Not Reddit — Reddit clone with user authentication, embedded media content posts, meta link previews, and comments
- Project: Melody Chuang Coaching — Professional small 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

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 HTML/CSS/JavaScript 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