

# Meng (Maggie) Tian

## Full Stack Developer | Software Engineer

Seattle, WA | 917-561-3536 | [mengtian.thu@gmail.com](mailto:mengtian.thu@gmail.com) | [GitHub](#) | [LinkedIn](#) | [Portfolio](#) | U.S. Permanent resident | Open to work

### TECHNICAL SKILLS

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**Languages:** Javascript, Python, R, Matlab, SQL, SAS, HTML, CSS, LaTeX

**Frameworks:** Node.js, React, Redux, Flask, Express, Sequelize, SQLAlchemy, PostgreSQL, SQLite3, SocketIO, AWS S3, Docker

**Data/Machine Learning:** TensorFlow, Numpy, Pandas, Scikit-Learn, Matplotlib, Statistical Modeling, Data Mining

**Expertise:** Git, Kanban, Object-Oriented Programming (OOP), Test-Driven Development (TDD), Data Structures & Algorithms, Debugging, Deployment, Database management, Agile Project Management, Team communication

### PROJECTS

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**FlavorEats**, Full Stack Developer - Python | Javascript | React | Redux | Flask | AWS | Google Maps API [Live](#) | [GitHub Repo](#)

*An all-in-one app that combines food search, multi carts ordering, reviews and store admin dashboard, inspired by UberEats & Yelp.*

- Developed **Flask** backend API server and integrated with **React** for intuitive and responsive UI.
- Built **PostgreSQL** database and set up schema. Optimizes queries using **SQLAlchemy** to maintain data integrity.
- Devised a versatile multi-way search feature with **JavaScript** and React, along with geolocation-based search via **Google Maps API** and **local storage** location caching, elevating food search and ordering experience.
- Stored image uploads in the cloud using **AWS S3** buckets, significantly reducing server load and enhancing scalability.

**PinThis**, Full Stack Developer - Javascript | Python | React | Redux | Flask | Node.js | SQLAlchemy | AWS [Live](#) | [GitHub Repo](#)

*A finely crafted Pinterest clone that offers appealing image browsing, effortless collaboration, and social connections.*

- Utilized **Redux** store for global state management, predictable data flow and synchronized **DOM** rendering.
- Created unique styling with custom React components and animations using (asynchronous) **Javascript** and **CSS**.
- Thoughtfully scripted **Flask** routes to manage intricate relational data, ensuring seamless user interactions.
- Key role in 4-member team: code debugging, feature planning, **Git** version control. Achieved cohesive project delivery

**MeetFun**, Full Stack Developer - Javascript | Express | Sequelize | SQLite3 | React | Redux | AWS [Live](#) | [GitHub Repo](#)

*A Meetup-inspired app focusing on community engagement and featuring group, event management and membership administration.*

- Created robust backend routes using **Node.js** and **Express.js**, defining API endpoints and managing **HTTP** requests.
- Utilized **Sequelize** ORM to interact smoothly with **PostgreSQL** database, ensuring efficient data storage and retrieval.
- Ensured user security by integrating end-to-end user authentication and authorization. Combined backend and frontend measures, including **CORS**, **CSRF** protection, **JWT** tokens, **BCrypt** hashing, and protected **React Router**.
- Implemented error handling middleware and rigorously tested backend routes using **Postman** for API functionality.

### EXPERIENCE

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#### Research Engineer

Jun 2021 - Sep 2022

Baruch College, City University of New York

- Managed **>200GB** daily stock option trading database. Developed algorithms in **Matlab** to build trading signals and dynamic investment portfolios. Achieved remarkable **70%** risk reduction and largely enhanced trading performance.
- Data mining in **SAS**, and employed **machine learning** (Lasso, Ridge, clustering, random forests, boosting trees), **Scikit-Learn**, **Numpy** and **Pandas** tools in **Python** to perform exhaustive analysis on **104** key option predictors.
- Successfully published **2 papers** in top tier finance journals - *Management Science & Review of Asset Pricing Studies*.

### EDUCATION

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App Academy, Full Stack Development

Feb 2023 - Aug 2023

Baruch College, City University of New York, PhD in Finance, GPA: 3.7

Aug 2013 - Jun 2021

New York University, Visiting Scholar

Feb 2016 - Aug 2016

Tsinghua University, China, Bachelor of Economics and Finance, GPA: 3.4

Aug 2008 - Jun 2012