

# YOUMING LIU

## Senior Fullstack Developer

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### Summary

Youming has over 9 years of experience in ranging from **Web** and **Mobile development** to Optimization Problems, **Machine Learning** and **Data Science** with a strong focus on **Full-Stack** web applications. He specializes in **Python, Typescript, Django, Node.js, Express, Nest** and **React, React Native, Vue, Angular** with expertise deploying to both server and serverless environments on **AWS, GCP** and **Azure**. He also works with relational databases and large datasets. He is the type of developer who can quickly comprehend business requirements and turn them into valuable software.

### Skills

Full Stack Development • Mobile Development • Android Development • iOS Development • Devops Engineering

Javascript • Typescript • Python • PHP • Java • Golang • Ruby • HTML5 • CSS • NPM • Yarn • Vite

React • React Native • Flutter • Vue • Nuxt • Angular • Next • Gatsby • Redux • Recoil • Mobx • Zustand • Zod • Yup

SCSS • LESS • Material UI • Ant Design • Chakra UI • Styled Component • Radix UI • Shadcn • Bootstrap • Tailwind CSS

Node.js • ExpressJS • NestJS • Laravel • Django • Flask • Fast API • MySQL • PostgreSQL • Redis • MongoDB • Supabase • Firebase • SQL

Github • Gitlab • Jira • Bitbucket • CI/CD Pipeline • TDD • Jest • Cypress • Mocha+Chai • Unit Testing • E2E Testing • Jenkins • NoSQL

Amazon Web Services • Google Cloud Platform • Docker • Kubernetes • Azure • Terraform • Linux • RabbitMQ • Design Patterns

Stripe • Mapbox • Google Map • Sanity • tRPC • gRPC • Zoho • Zapier

### Experience

#### Toptal

Ellenton, FL

##### Senior Full Stack Developer

06/2024 - Present

- Designed and developed a cross-browser extension with a sophisticated dashboard leveraging **Plasmo**, **T3-stack**, and **PostgreSQL**.
- Utilized **Shadcn UI** for intuitive UI design, **Prisma** for **ORM**, **tRPC** for seamless backend communication, and **TurboRepo** for efficient management of microservices within a **monorepo** architecture.
- Championed the use of **Jest**, **Vitest**, and **Cypress** for rigorous unit and **end-to-end testing**, ensuring high-quality code and reliable software delivery.

#### Fortunes Tech

Goffstown, NH

##### Senior Full Stack Developer

01/2024 - 07/2024

- Led a team of 7 members while performing **code review**, **scrum planning**, writing technical documentation for newcomers and managing the tickets on the board.
- Provide the full-stack development services utilizing the **Typescript**, **React.js**, **MUI**, **NestJS**, **PostgreSQL**, **GraphQL**, **Docker**, **AWS** and **TerraForm**.
- Led the UI refactoring process utilizing **Material-UI**, **TailwindCSS** and **Storybook**.
- Led the seamless migration from an **Express** backend with **REST API** to **Nest.js** with **GraphQL**, leveraging my advanced expertise to enhance performance, scalability, and maintainability of the application architecture.
- Successfully orchestrated the transition from **MongoDB** to **PostgreSQL**, demonstrating advanced proficiency in database management and effectively optimizing the application's data storage and retrieval capabilities.
- Designed and built robust **Nest backend** systems by following the **Serverless Architecture** based on **AWS Services** like **AWS RDS**, **Lambda**, **API Gateway**, **S3**, **SQS**, **SNS**, **Elastic Beanstalk**, **CloudFormation**, **CloudFront**.
- Led **Mobile** Development including **Android** and **iOS** using **React Native** and **Expo** from scratch with engineering team.

#### Emergent Software

St Paul, MN

##### Senior Software Developer

10/2020 - 12/2023

- Assisted over 10 startup companies and projects with extensive knowledge of **Blockchain** like **Ethereum** network.
- Developed **smart contracts** for over 20 blockchain-related applications like **Defi**, **NFT**, **P2E** games and Metaverse projects.
- Created bot systems for **blockchain** transaction automation, including **trading bots**, **arbitrage**, and **liquidations**.
- Created API and **WebSockets** endpoints for live data feeds and direct connection to the front end.
- Developed pixel-perfect, user-friendly **Web3** front end applications utilizing **React**, **Next**, **Vue** and **Angular.js** based on Figma UI/UX design and integrated with various **Solidity** smart contracts using **web3.js** and **ethers.js**.
- Optimized gas costs for a complex multi-layer smart contract replacing **solidity** code with in-line assembly.
- Helped create an upgradable contract system through a **proxy** contract system.
- Oversaw and led the development of a decentralized and distributed team across four different time zones to build a full-stack application.

## Experience

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### JOOR

#### Full Stack Developer

New York, NY

01/2018 - 09/2020

- Designed and developed **backend RESTful APIs** with a diverse tech stack, including **Node.js, Express, NestJS, PHP, Laravel, Python (Django, Flask)**, and databases like **MongoDB, PostgreSQL, MySQL**, and **Redis**, leveraging **AWS** and **Firebase** for scalable cloud solutions.
- Translated **Figma, Adobe XD** designs to **pixel-perfect** and fully responsive design using **JavaScript, TypeScript** and its libraries **ReactJS, NextJS, Remix, Vue, Angular, HTML, CSS, SCSS**, and **LESS**.
- Migrated a healthcare web application from the **LAMP** stack application to a modern **MERN** stack app.
- Implemented real-time communication functionalities using **Web Socket** and **React-query**.
- Implemented **Stripe API integration** with payment flow, trial periods, monthly and yearly subscriptions, and withdrawals.
- Created automated testing framework in **Jest, Mocha + Chai + Simon** for **unit testing** and **e2e UI testing**.
- Implemented **CI/CD** pipelines using **GitLab** Actions in each step of the development cycle which improved integration and delivery towards agile development methodologies.

### Stride

#### Software Engineer

New York, NY

06/2016 - 12/2017

- Architected and developed robust, cross-browser-compatible health care front-end using JavaScript, **TypeScript, React**, and **Next.js**.
- Engineered scalable **Rest APIs** with **Express.js**, ensuring high performance and reliability.
- Implemented advanced state management and UI styling utilizing **Redux, redux-saga**, and **TailwindCSS**.
- Designed and optimized database operations with **PostgreSQL**, and enforced high code quality standards using **Jest** for comprehensive testing.
- Spearheaded the acceleration of code delivery by introducing a **Continuous Integration (CI)** and **Continuous Delivery (CD)** pipeline, dramatically improving deployment efficiency.
- Established and maintained scalable project infrastructures on **Google Cloud Platform**, ensuring optimal performance and scalability.
- Ensured project stability and reduced defects by rigorously applying **TypeScript** and implementing automated testing strategies with industry standard testing frameworks.

### AgileEngine

#### Web Developer

Boca Raton, FL

05/2015 - 05/2016

- Engineered and deployed robust websites leveraging **PHP MVC frameworks** such as **Laravel** and **CodeIgniter** to ensure maintainable and scalable architecture.
- Led the planning and execution of website development, transforming design mockups into fully functional, responsive web interfaces using **Angular, HTML5, CSS, JavaScript, AJAX**, and **JSON**.
- Implemented critical security maintenance and patching protocols on website interfaces, ensuring post-launch viability and protecting against vulnerabilities.
- Developed custom **modules** and **libraries** that are highly customizable and easily reusable, enhancing development efficiency and consistency.
- Designed and transitioned legacy websites into modern, mobile-friendly platforms, utilizing responsive design techniques to create seamless user experiences across devices.

## Education

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### University of Pittsburgh

#### Master of Science - MS, Computer Science

02/2014 - 04/2015

### Sun Yat-sen University

#### Bachelor of Science - BS, Computer Science

04/2007 - 03/2011