Michael Long

Availability: May 2024 – Sep 2024

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Education

Northeastern University, Boston, MA *Sep 2021 – May 2025*
B.S. in Computer Science and Business Administration GPA: 3.9 / 4.0

Coursework: Algorithms & Data Structures, Object-Oriented Design, Networks & Distributed Systems, Database Design, Software Engineering, Data Science, Discrete Mathematics, Calculus 3

Skills

Languages: TypeScript / JavaScript, Python, Java, HTML, CSS, SQL, Swift

Tools: React, Node.js, Django, Express.js, Next.js, SwiftUI, MySQL, PostgreSQL, MongoDB, AWS (ECS+Fargate, S3, CDK), Git, Jenkins, Docker, GraphQL, NumPy, Pandas, Matplotlib, Scikit-Learn, BeautifulSoup

Experience

Hometap, Boston, MA *Jan 2024 – May 2024*
Full-Stack Engineering Co-op

- Developing **React** (**JavaScript**) frontends for client and staff portals to facilitate home equity investments
- Building **REST + GraphQL APIs** with **Django** (**Python**) Dockerized backend to handle business logic and perform interactions with **PostgreSQL** database
- Implementing **integrations** with **external tools** including Salesforce, HouseCanary, Segment, Experian, and more

PowerAdvocate (now part of Wood Mackenzie), Boston, MA *Jan 2023 – Aug 2023*
Software Engineering Co-op

- **Spearheaded brand-new data curation web application** with **React** (**TypeScript**) frontend and **Node** (**TypeScript**) **REST API** that served requests and responses to/from shared **Django** (**Python**) microservice
- **Deployed tool** to **production environment** by writing and running **Jenkins** pipelines and constructing **AWS** CDK stacks using ECS Fargate containers and Route 53 public and private zones
- **Architected new API endpoints** for Python data service that **reduced page load times** from ~**15s** to ~**3s**
- **Streamlined code** by **400+ lines** by implementing "react-hook-form" library after proposing idea and convincing senior engineers of library's benefits and security
- **Ensured code quality** by **writing 90+ Jest tests** covering rendering, routing, events, requests/responses

Wayland Student-Athlete, Wayland, MA *May 2020 – Present*
Co-Founder

- **Envisioned, launched, and managed local odd jobs business** that completed 260+ jobs for **140+ clients** across 10+ towns **earning $48,000+ in revenue** and donating over $1,000+ to charitable foundations
- **Developed business website** with **TypeScript, Next.js, React, TailwindCSS, and MySQL**, implementing a user request form and admin job dashboard to connect families with requests for odd jobs to high school students
- **Organized, delegated, and personally fulfilled** job requests to **grow and lead business** with 8 peers
- **Sold business** to **new generation of high school students** to build upon its success

Projects

Shoots
- **Invented mobile app** designed to motivate users and provide accountability in reducing undesirable screen time through friendly competition and potential rewards
- Developed **Swift/SwiftUI** iOS frontend designed with **Figma** on top of **Python FastAPI** backend

Big City Diner
- **Rebuilt website** for local Hawaiian restaurant chain with **Next.js, React + TS, and TailwindCSS**
- **Leveraged GraphQL-based content management system API** to allow restaurant managers to add menu items, update location operating hours, and more on no-code platform
- **Designed color palette, typography, wireframes, and mockups** for site's **UI/UX** with **Figma**