Levi Mickelson

1374 Longview Avenue, Peekskill, NY 10566 | (607) 220-3679 | levimickelson6@gmail.com
levimickelson.com | LinkedIn | GitHub

EDUCATION

Binghamton University, SUNY | Thomas J. Watson College of Engineering and Applied Science
Bachelor of Science, Computer Science, May 2023
GPA: 3.49/4.00 | Dean's List: Fall 2019, Spring 2020, Spring 2021

TECHNICAL SKILLS

Java | Spring Boot | RESTful Webservices | C++ | C | Python | JavaScript | React | TypeScript | Next.js | Node.js | Express.js | SQL | Prisma | Redux | HTML | CSS | Tailwind CSS | Docker | Kubernetes | GCP | Git | Linux | MongoDB | Firebase | Postman | JSON | XML

PROFESSIONAL EXPERIENCE

Golf PDI, Ridgefield, Connecticut
Junior Full-stack (December 2024 – Current Day)
- Contributed to a data-driven golf assessment system that measures, analyzes, and guides athlete development.
- Developed responsive UI components utilizing React, TypeScript, JavaScript, and Redux to deliver intuitive user experiences and seamless front-end functionality.
- Constructed robust API endpoints within a Node.js-based system using Prisma ORM and SQL stored procedures to optimize database operations and performance.
- Integrated Stripe API for subscription-based services, implementing secure backend payment processing solutions and corresponding database architecture changes.
- Engineered Firebase Cloud Messaging integration for real-time notifications, developing endpoints for message delivery and user data management.
- Utilized Azure DevOps and Git for version control throughout the development lifecycle, ensuring code quality and efficient collaboration

CFCU Community Credit Union, Ithaca, New York
Application Developer (January 2023 – December 2024)
- Played a key role in the transition to CFCU's new digital banking platform by developing full-stack applications and bringing them to production for CFCU's 80,000+ members.
- Designed and implemented frontend features for the digital banking platform, including an ATM locator, single sign-on integration with third-party fintech services, check image display, and more using JavaScript, React, HTML, and CSS.
- Developed REST and SOAP APIs to support the frontend features using, Java, Spring Boot and containerized applications with Docker. Integrated encryption algorithms and third-party APIs to enhance data security.
- Utilized administration tools to manage and update CFCU's digital banking platform.

CFCU Community Credit Union, Ithaca, New York
Intern (Summer 2022)
- Created a full-stack social event platform enabling employees to discover and register for CFCU-hosted events.
- Developed the frontend using JavaScript, HTML, and CSS allowing users to register/unregister for events, track involvement statistics, and view leaderboards.
- Implemented administrative tools for event creation and management, user detail updates, and data exports.
- Designed a REST API using Java, Spring Boot, and MongoDB to manage data interactions for the frontend application.

Healthix, New York, New York
Intern (Summer 2021)
- Developed a Java-based web service for converting PDFs to text documents for easier patient data analysis.
- Deployed using Apache Tomcat and Spring Boot; tracked metrics with SQL Server and H2 Database.

PROJECT EXPERIENCE

Kubernetes Chaos Engineering (Winter 2023)
- Implemented and containerized a live chat application utilizing Python Flask, MongoDB, and Docker.
- Deployed the application to a Kubernetes cluster created on Google Cloud Platform virtual machines.
- Used the toolkit, Chaos Mesh, to inject the cluster with multiple faults, including network latency, limited memory, and killing Kubernetes pods, in order to examine the fault tolerance of the system.

Python Socket Programming (Spring 2023)
- Engineered a multi-threaded proxy and webserver using Python socket programming.
- Deployed proxy server caching, reducing webserver load by storing and retrieving files from the proxy server cache. Developed safe termination protocols for server threads, ensuring graceful TCP connection closures.

Stock Market Price Prediction using Recurrent Neural Networks (Summer 2023)
- Implemented and extended a research paper titled "NSE Stock Market Prediction Using Deep-Learning Models" by using PyTorch and NumPy to replicate findings of using Recurrent Neural Network models to predict stock prices.
- Adapted and tested these models on data from the S&P 500 and Apple stock, employing additional features (volume, exponential moving averages, and volume-weighted average prices) to enhance prediction accuracy.
- Introduced a new RNN variant, Bidirectional LSTM (BLSTM), and optimized existing models by adjusting parameters such as time steps and window sizes, achieving improved model performance.
- Conducted comprehensive evaluations and visualization of model performance using Python Pandas.