Mehmet Berke Karadayi

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Technical Skills

Programming Languages

TypeScript, JavaScript, Python, HTML/CSS, C, SQL

Frameworks and Libraries

React, Redux, React Native, Django, Next.js, Node.js, Express.js, Electron.js, Tailwind CSS, DRF Git/Github, PostgreSQL, React Testing Library (RTL), Jest, Unit Test, Amazon Web Services (AWS)

Education

University of British Columbia

Technologies and Tools

Vancouver, Canada

Bachelor of Applied Science in Electrical Engineering

Sep 2020 - May 2025

Work Experience_

Redbrick Vancouver, Canada

Full Stack Developer Co-op

Jan 2024 - Apr 2024

- Developed a Chrome extension with React and TypeScript to seamlessly collect and transmit user data for the Digital Scope project— a
 cutting-edge carbon emissions calculator used by over 100,000 users in the sustainability sector.
- Designed and implemented efficient RESTful APIs with Django Rest Framework, improving data transmission between the server and a
 PostgreSQL database while ensuring high performance and scalability.
- Built scalable, serverless infrastructure on **AWS** services (RDS, SQS, Secrets Manager, S3), enabling seamless scaling from 500 to tens of thousands of daily users and handling peak traffic of 1,000+ requests per second.
- Implemented comprehensive test cases for **Django** API endpoints using **Python's unittest** module, enhancing reliability by verifying request handling, response status codes, and error scenarios, leading to a 15% reduction in error rates.

ConeTec Vancouver, Canada

Software Development Co-op

May 2023 - Dec 2023

- Collaborated with a cross-functional team to develop a responsive desktop application using React, Electron.js, and Fluent UI, improving
 usability for 5,000+ engineers while ensuring on-time deployment and seamless workflow integration.
- Utilized React Hooks and Redux for effective state management by designing custom features and components that streamlined user interactions, enhanced performance, and ensured scalability for managing large datasets.
- Implemented industry best practices for data processing, utilizing **TypeScript** and **React** components to seamlessly integrate backend web services with **Node.js**, ensuring reliable communication and data flow between frontend and backend systems.
- Conducted unit testing for React components using Jest and RTL, achieving over 95% test coverage, significantly enhancing code quality.

Cerebrum Tech Istanbul, Turkey

Software Engineer Intern

May 2022 - Aug 2022

- Enhanced mining operations by contributing to the development of an NFT Marketplace using **React**, **TypeScript**, styled components, and the Solana web3 library, resulting in an impressive 15% boost in overall efficiency.
- Designed and implemented secure authentication pages for mobile platforms using **React Native** and **Firebase**, leveraging React Hooks for efficient state management and interactivity, increasing app downloads by 30% and enhancing user experience.
- Collaborated with team members in an agile environment, utilizing **Git/GitHub** for project management and version control, while consistently organizing and leading weekly meetings with colleagues and supervisors to ensure the punctual delivery of projects.

Technical Projects

Chat Application - Personal Project

Dec. 2024

- Developed a full-stack chat application using Next.js for the frontend, Express.js and Node.js for the backend, and PostgreSQL with SQL queries for persistent data storage, enabling user authentication, real-time messaging, and a fully responsive interface.
- Designed and implemented core features like persistent message history, contact filtering, and message deletion with confirmation window, using **Tailwind CSS** for a visually appealing and intuitive UI.
- Integrated functionalities such as emoji support, real-time status updates, and scalable **RESTful APIs** to enable dynamic user interactions.

Coin Tracker Application - Personal Project

September, 2024

- Designed a responsive web application with **React** to track cryptocurrency prices in real-time, featuring sophisticated search and sorting functionalities for filtering by name or symbol and identifying market leaders.
- Leveraged React's state management and Material UI components to deliver a seamless, user-friendly interface with enhanced functionality, integrating efficient API handling for real-time data updates.

Multithreaded Snake Game - Group Project

Mar 2023 - Apr 2023

- Collaborated with team members to design and develop a snake game with a graphical user interface using the Tkinter library in **Python**, implementing multi-threading to provide a smoother and more responsive user experience.
- Designed and implemented a UDP-based client-server model in Python, utilizing socket and time modules to facilitate ping message exchange, calculate round-trip time, and emulate network delays and packet loss with randomness.