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 using AWS services (RDS, SQS, Secrets Manager, S3), capable of handling over 1,000 requests per second, supporting rapid user growth from 500 to tens of thousands of unique users per day.
- 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.

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