Mahmut Baran Turkmen

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WORK EXPERIENCE

Junior Front End Engineer **07/2023 – Present**

VIOOH (JCDecaux subsidiary)

- Implemented the core UI components of a sell-side advertisement exchange supporting $150M+ in annual transactions using React.js, Typescript and Redux
- Owned and led the design system development and release process using React.js, Storybook and GitHub Actions to standardise UI components across 4 teams, reducing UI-related bug issues by ~50%
- Cut tabular data loading time from 120s to 5s by replacing a third-party table service with a custom AG Grid code, increasing the customer satisfaction score to 8.3/10 (by +3.5/10)
- Developed a new customer overview feature to handle 25+ deals in parallel by fixing race conditions in Redux state and network requests with TypeScript
- Optimised 50K+ objects' loading time on the map by implementing a proximity-based filtering algorithm, reducing load time by 43%

Back End Developer, Blockchain *(Freelance)* **03/2022 – 09/2022**

Ajinomoto Turkiye

- Built a REST API in JavaScript integrating IPFS storage with an EVM blockchain to enable product ingredient verification
- Uncovered business-impacting E2E errors by achieving 100% test coverage in Jest and implementing error handling
- Authored API endpoint documentation in OpenAPI Specification to simplify integration for external teams
- Deployed the API to the production environment and handled 5K+ monthly active users

PROJECTS

Tapit Co. **(project)** **05/2024 – Present**

- Developed a full stack web app in Next.js, React.js and TypeScript with a physical product line that supports 10+ B2B clients to acquire new paying customers through personalised contactless accessories
- Implemented real-time error catching using Sentry, fixing a production error within 24 hours after it was raised

Decentralised CLOB Exchange **(project)**

- Built a real-time trading UI using WebSockets and JavaScript that achieves sub-100ms latency to update a live order book
- Created a central limit order book and its order-matching engine in Solidity to execute on-chain orders on EVMs
- Developed 25+ integration tests in Mocha and Hardhat to validate market, limit, partial orders, and cancellations

Algorithmic Trading Bot

- Implemented a low-latency trading algorithm on live EVM-compatible transaction pools using JavaScript, generating a 13% return on £15K over 6 months
- Rerouted transactions via self-hosted full BSC node to improve the transaction speed, increasing the profitability by 200%

EDUCATION

Durham University **09/2019 – 06/2022**

Bachelor of Science in Computer Science

- **Modules:** Algorithms, Data Structures, Human-AI Interaction Design, Networks, Distributed Systems and Databases
- **Dissertation:** Universally Accessible Order Book Style Decentralised Exchange **(paper)**
- Course Representative

TECHNICAL SKILLS

- **Languages:** JavaScript, TypeScript, Python, Solidity, Bash, SQL, HTML, CSS
- **Technologies:** React.js, Next.js, Redux, Storybook, Tailwind CSS, SQLite, MongoDB, Hardhat
- **DevOps:** AWS, GitHub Actions, Datadog, Cloudflare, Git, Jest, Swagger