

Mark Melnik

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📁 Portfolio | 🔗 LinkedIn | 🐙 GitHub

SOFTWARE ENGINEER

Highly motivated and dedicated programmer seeking a software engineering opportunity. Experience in designing, building, and deploying both solo and collaborative applications using full-stack code. Well-versed in computer science fundamentals, algorithmic design and analysis, data structures, databases, networks, web processes, and the software development lifecycle.

TECHNICAL SKILLS

Languages: JavaScript (ES5, ES6+), TypeScript, HTML, CSS, Java, SQL (Postgres)

Frameworks/Libraries: React, Redux, Query, Node.js, Express, Spring, Astro, Sass, Jest, Cypress

Tools/Technologies: Git, GitHub, Webpack, Vite, ESLint, REST APIs, GraphQL, JWT, Docker, CI/CD

Certifications: AWS Certified Cloud Practitioner

PROJECT EXPERIENCE

Inglespanol | Full Stack Developer

Present

- Developed a bilingual translation app allowing users to create and save custom English to Spanish translation cards
- Created a mobile-first, responsive, accessible UI with modular **React** and **TypeScript** components and Sass modules
- Built a **Node.js/Express** backend with **PostgreSQL**, leveraging GraphQL to efficiently centralize business logic
- Implemented Google OAuth2.0 authorization using Passport.js to secure user accounts and streamline app access
- Integrated the LibreTranslate API within a Web Worker to offload translation computation and boost performance
- Created a testing suite using Jest for unit tests and Cypress for end-to-end tests, ensuring robust code quality

BallerBlitz | Full Stack Developer

[Demo](#) | [Source](#)

- Developed a social app for basketball fans to predict game outcomes, track advanced stats, and engage with friends
- Built a responsive, accessible UI with **React** and **TypeScript**, decreasing page loads with code-splitting, lazy loading
- Created **Node.js/Express** backend with **PostgreSQL**, managing 30+ RESTful endpoints for essential business logic
- Implemented JWT auth with refresh/access tokens and WebSocket email verification following OWASP guidelines
- Established a data pipeline to fetch, transform, and serve data from a real-time scoreboard API to the frontend
- Incorporated GitHub Actions CI/CD workflow with feature branching and PRs, to build and deploy to Render

FitFinder | Full Stack Developer

[Demo](#) | [Source](#)

- Developed a fitness location app letting users explore and bookmark various fitness locations in New York City
- Created a mobile-first, responsive, accessible UI with modular **React** and **TypeScript** components and Sass modules
- Implemented state management with Redux and Context to provide a clear and predictable state management system
- Built a RESTful **Java Spring** API with **PostgreSQL**, supporting CRUD and filtered search on an ORM schema
- Integrated OpenStreetMap API to dynamically render location markers from geospatial data onto an interactive map

ADDITIONAL EXPERIENCE

Resident Assistant

August 2019 – May 2022

Binghamton University Residential Life

Binghamton, NY

- Cultivated a supportive community of 25+ residents every year through regular counseling and community initiatives
- Provided critical support for residents facing mental health issues, cultural discrimination, and language barriers
- Collaborated with team members to resolve resident issues, organize weekly meetings, and coordinate events

Undergraduate Researcher

November 2020 – August 2021

Movement Disorders Laboratory (Parkinson's Disease)

Binghamton, NY

- Investigated neuroplasticity in dopaminergic and serotonergic systems to understand their roles in Parkinson's Disease
- Collaborated with lab team to design and implement a rat model study, testing a promising drug therapy for PD
- Managed time-sensitive procedures to collect experimental data; applied R and SPSS to analyze and visualize data

EDUCATION

The Odin Project

September 2022 – November 2023

Completed an intensive curriculum in Computer Science and Full Stack Development

Binghamton University

August 2018 – May 2022

Bachelor of Science, Neuroscience & Russian

GPA of 3.9/4.0