IAN DUNN
Software Engineer
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EXPERIENCE

Mindex   Oct 2024 – Present
Associate Software Engineer   Remote
- Drove a $4M increase in annual revenue with an enterprise microservice to automatically assign price tiers.
- Created a CSV ingestion pipeline from AWS S3 into MongoDB to process 5,500 records per minute.
- Implemented a Kafka consumer to propagate near real-time updates to downstream billing systems.
- Presented production changes to project stakeholders and documented handoff for client teams.

Aperture Solutions, LLC   Mar 2025 – Present
Freelance Software Developer   Remote
- Delivered end-to-end websites for small businesses, including a new client site with 130 monthly visitors.
- Evaluated Software as a Medical Device systems for regulatory compliance during pharmaceutical quality audits.
- Designed a custom CMS storefront using React, Spring Boot, and Postgres to provide control of product listings.

RIT Laboratory of Software Design and Productivity   Mar 2023 – Aug 2023
Software Security Team Lead   Rochester, NY
- Developed a REST API suite using Spring Boot and JSON/XML manipulation to create and analyze SBOMs.
- Led team planning meetings and presented burndown charts to leadership for each sprint.
- Deployed a scalable back-end platform and a custom open-source analysis utility using Docker Compose.

PROJECTS

MarketSNIPR | *PyTorch, NumPy, Pandas*   Aug 2024 – Present
- Developing a reinforcement learning trading agent that learns strategies using profit/loss reward functions.
- Researching TD3 learning to model stock price movements using technical indicators and sentiment analysis.
- Focusing on policy learning and simulation, with planned expansion to brokerage API integration.

outthebasement.com | *React, Spring Boot, PostgreSQL, Docker*   May 2025
- Built a full-stack inventory management system using React, Spring Boot, and PostgreSQL.
- Designed REST APIs for CRUD operations, server-side image storage, and token-based authentication.
- Automated deployment to a DigitalOcean Droplet using Docker Hub and GitHub Actions CI/CD pipelines.

EEG Data Collector | *Python, Tkinter*   Dec 2023 – May 2024
- Created a Tkinter GUI application to capture brain activity in response to audiovisual stimuli.
- Documented the project's usage and scalability for adaptation by other research teams.

LEADERSHIP

RIT Neurotechnology Exploration Team   Dec 2023 – May 2024
Wheelchair Project Co-Investigator   Rochester, NY
- Pioneered a brain-motor interface project to enable people with motor dystrophy to operate a motorized wheelchair.
- Conducted an IRB-approved human subject research study to collect model training data.

EDUCATION

Rochester Institute of Technology   Aug 2021 – May 2024
Bachelor of Science in Computer Science   Rochester, NY

TECHNICAL SKILLS

Languages: Java, Python, C#, JavaScript/HTML/CSS, SQL (Oracle, PostgreSQL), MongoDB, C, PHP, Bash
Frameworks: React, Node.js, Django, Flask, Express, Angular, Bootstrap, JUnit, Kafka, Nginx
Developer Tools: Git, Docker, Jenkins, Jira, Confluence, OpenShift, JetBrains Suite, BitBucket, Ant
Libraries: NumPy, Pandas, SciKit-Learn, OpenAI Gym, Avro