IAN DUNN
Software Developer

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EDUCATION

Rochester Institute of Technology, Rochester, NY   **Expected Dec 2024**

Bachelor of Science in Computer Science

- Relevant Coursework: Algorithms, Machine Learning & AI, Computer Vision, Database Management, Data Analysis.

PROFESSIONAL EXPERIENCE

RIT Laboratory of Software Design and Productivity, Rochester, NY   **Mar 2023 – Aug 2023**

Software Security Engineer – Team Lead

- Integral to a multi-million-dollar government-sponsored research project **(subject to NDA)**.
- Developed, unified, and utilized Software Bill of Materials tools to enhance software security and compliance measures.
- Directed the backend team, focusing on streamlined Agile workflows and consistent, high-quality deliverables.
- Facilitated multi-level team communication to contribute to full-stack development.
- Produced comprehensive educational resources and documentation regarding SBOMs.

Independent Front-End Web Developer, Fairport, NY   **Dec 2019 – Dec 2021**

- Redesigned Suburban Driving School's website to enhance user experience and content accessibility for senior citizens.
- Managed timely and accurate content updates for the client.

PROJECTS

MarketSNIPR – Personal   **Current**

- Developing a stock trading algorithm using deep reinforcement learning to predict closing prices accurately.
- Implementing TD3 learning in PyTorch for forecasting nonlinear time-series data using historical data and technical indicators.
- Integrating web scraping to automatically update the algorithm with real-time historical data.

Wheelchair Project Data Collector – RIT Neurotechnology Exploration Team   **Dec 2023 – May 2024**

- Developed a Tkinter GUI application to capture brain activity in response to audiovisual stimuli for a research study.
- Documented the project's usage and scalability for adaptation by two different research teams.
- Implemented the LSL streaming protocol for synchronization with a Bluetooth receiver, achieving 1-millisecond precision.

Spotify Statistics Analyzer – Personal   **Oct 2022**

- Engineered an Express web app that allows users to log in using OAuth2 and the Spotify API to access their Spotify statistics.
- Summarizes a user's current, monthly, and all-time listening statistics of songs, artists, and genres.

ADDITIONAL LEADERSHIP

Wheelchair Project Co-Investigator – RIT Neurotechnology Exploration Team   **Dec 2023 – May 2024**

- Pioneered a brain-motor interface project to enable people with motor dystrophy to operate a motorized wheelchair.
- Managed a team of 5+ software developers, collaborating with a cross-functional team of 6+ mechanical engineers.
- Conducted a human subject research study to collect EEG signals in response to motor stimuli.

President – NY Eta Chapter, Phi Delta Theta Fraternity   **Dec 2022 – Dec 2023**

- Proceduralized chapter operations by leading the development of officer transition manuals to set year-round standards.
- Led team that raised $10,000+ for The Lou Gehrig Foundation over one academic year by expanding campus outreach.
- Maintained a positive relationship with university administration and handled all external affairs.

SKILLS

Technical Skills: Project Management, REST APIs, Research & Development, Software Design & Architecture, Front- & Back-End Web Development, Unit Testing

Languages: Proficient: Java, Python, Javascript/HTML/CSS, and SQL.
            Familiar: C, C#, MIPS Assembly, MongoDB, Bash, MATLAB, PHP

Other: NumPy, Pandas, SciKit-Learn, Node.js, Flask, React, Express, Spring, Git, Linux, Docker, Trello, PyTorch, BeautifulSoup4