

Lucas Furlong - Software Engineer

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Skills & Certifications

- **Languages:** TypeScript, JavaScript, C#, Python | **Databases:** SQL, PostgreSQL, Firebase
- **Frameworks:** React, Angular, .NET Core, Node.js | **Tools:** Docker, Git, Supabase, AWS, Azure
- **Mobile:** React Native, Ionic | **Other:** REST APIs, CI/CD, Agile (Scrum, Kanban), Frontend Optimization

Job Experience

Software Design Engineer, Torch Technologies - Warren, MI Sep 2024 – Current

- **Optimized database performance** by redesigning SQL queries and indexing strategies for a 10,000+ record system, **achieving 30% reduced latency** and enhancing real-time vehicle diagnostics analytics.
- **Led test automation** for two key projects, expanding an **Angular and FastAPI app** integrated with GitLab pipelines, **achieving 50%+ automated test coverage** supporting cross-functional teams.
- **Maintained a Vue.js Electron application** to interface with vehicle diagnostic systems, **improving data retrieval speed by 40%** and enhancing real-time monitoring capabilities.

Software Engineer, OWL Computing Development - Walker, MI Apr 2023 – Aug 2024

- **Delivered 5+ client projects 30-45% ahead of schedule** by optimizing workflows and refactoring legacy code, **saving \$50K in development costs**.
- **Modernized a legacy VB.NET application to Angular**, **reducing user task time by 25%** and improving overall system efficiency.
- **Built and optimized a Next.js SaaS application** for a garment printing service, streamlining order processing workflows and **reducing turnaround time close to 50%**.
- **Designed and deployed a responsive customer portal in React** supporting 1,000+ users, **increasing engagement by 40%** through iterative user feedback integration.

Software Engineer Intern, Bradford White - Middleville, MI Sep 2022 – Apr 2023

- **Migrated a legacy VB.NET app to C#**, improving scalability and reducing maintenance costs.
- **Built a C# test system to validate hardware specs**, cutting testing time by 20%.
- **Automated equipment testing with custom tools**, improving accuracy and reliability by 15%.
- **Collaborated on embedded C/C++ code**, delivering projects on time and meeting hardware specs.

Project Experience

Chromatica — Aug 2024 - Nov 2024 <https://github.com/lucas-codes-stuff/chromatica>

- **Achieved ~96% accuracy by training novel network** on 10,000+ data points for API parameters.
- **Leveraged Spotify's Web API** to deliver personalized, real-time music recommendations.
- **Deployed neural network**, storing model parameters on Supabase for **scalable cloud deployment**.
- Tech Used: **Python, TensorFlow.js, Supabase, Spotify Web API, Deno, Angular, Ionic**

File System Simulation — Dec 2020 <https://github.com/lucas-codes-stuff/du-file-system>

- **Built a block-style file system using first-fit allocation** (vs. worst-fit), improving storage efficiency by 25% for fragmented data.
- **Developed custom commands (e.g., MOUNT, READ, WRITE)** to manage volumes, files, and directories.
- Tech Used: **C#, .NET Core, Command-Line Interfaces, Memory Management**

Education

Davenport University Apr 2023
Bachelor of Science in Computer Science with Specialty in Artificial Intelligence 3.9 GPA