

# WILLIAM WELSH

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FULL-STACK ENGINEER & CREATIVE TECHNOLOGIST. Building robust, local-first software and resilient infrastructure. Self-taught with a focus on offline AI tools, privacy, and systems programming. Background in event production translates to solving complex logistical problems with grit.

## TECHNICAL PROJECTS

**miniPaaS** [Node.js, Docker, Traefik, PostgreSQL]

- > Self-hosted PaaS with "git push" deployments and subdomain routing via Traefik.
- > Automated build pipelines for Node.js, Python, and Go using Docker and WebSockets.
- > Real-time build logging and health monitoring dashboard built with Express.

**DiaryML** [Python, FastAPI, llama.cpp, SQLCipher]

- > Local-first, air-gapped AI journaling app with AES-256 encryption (SQLCipher).
- > On-device sentiment analysis and RAG using ChromaDB and quantized GGUF models.
- > Zero-telemetry architecture running entirely on CPU with vanilla JS frontend.

**CodeCraft** [Rust, Tree-sitter, egui]

- > High-performance Python static analysis tool built in Rust with immediate-mode GUI.
- > Leverages Tree-sitter for real-time AST parsing and error detection.
- > Provides instant code quality suggestions and automated refactoring actions.

**Research Digest** [Python, Transformers, PyTorch]

- > Automated arXiv curation pipeline using local Hugging Face transformer models.
- > Generates mobile-optimized, scrollable feeds for efficient paper consumption.
- > No-cloud architecture; runs completely offline without external API keys.

## SKILLS

[Python] [Rust] [JavaScript/Node] [Docker] [FastAPI] [SQLAlchemy] [Git/GitHub\_Actions] [Linux\_Admin]  
[Local\_LLMs] [PyTorch] [OpenCV] [HTML/CSS]

## COMMUNITY & LEADERSHIP

**Best Records Detroit // Founder** 2023 - Present

- > Founded independent record label and event series in Detroit.
- > Executed weekly large-scale events; managed logistics, talent, and safety.
- > Cultivated a resilient community around experimental art/tech.

## WORK HISTORY

**Jet's Pizza // Pizza Maker** Feb 2025 - Present

**GETTEES // Production Associate** Jan 2025 - Feb 2025

- > Operated industrial machinery (Gerber GTXL); managed facility relocation.

**Policy Over Party // Field Canvasser** 2024

- > Top performer in community outreach and team recruitment.

**Logistics & Delivery** 2022 - 2024

- > High-volume route management for Uber/Amazon DSP. 100% safety record.

## EDUCATION

**Georgia Perimeter College** 2019 - 2021

*Computer Science Coursework*

**Kennesaw State University** 2017 - 2019

*Computer Science (Bachelor's Track)*