

# Tyler Guest

Software Developer

Davison, MI | 810-423-6100 | [tylerguest.com](https://tylerguest.com) | [tguest@umich.edu](mailto:tguest@umich.edu)

## Technical Skills

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**Languages:** C++, Python, JavaScript, Typescript, SQL, HTML, CSS

**Libraries/Frameworks:** React, Next.js, JUCE, PyTorch, NumPy

**Databases:** Supabase

**Tools:** Git, GitHub, VS Code

**Operating Systems:** Ubuntu 24.04.2, Windows 11

## Projects

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**dashtools** | <https://github.com/tylerguest/dashtools>

- Modern web productivity dashboard built with Next.js, React, and Supabase for seamless cloud-backed workspace management.
- Multi-window UI with draggable, resizable apps including Notes, Chatbot, etc. designed for efficient multitasking.
- Minimal, responsive design with real-time authentication and persistent storage, supporting both signed-in and guest users.

**megatensor** | <https://github.com/tylerguest/megatensor>

- Lightweight tensor computation library implemented with Python, supporting automatic differentiation and neural network operations.
- Intuitive API for tensor creation, mathematical operations, and autograd, designed for research and educational use.
- Modular architecture with extensible layers, optimizers, and loss functions for building and training custom machine learning models.

**4kverb** | <https://github.com/tylerguest/4kverb>

- Real-time reverb VST plugin built with C++ using the JUCE framework, enabling high-fidelity stereo audio processing.
- Custom UI with channel strip-style controls for intuitive sound shaping.
- Optimized delay-based DSP algorithms for minimal latency and efficient CPU performance.

## Education

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**University of Michigan – Flint**

*Bachelor of Science in Computer Science*

**GPA:** 3.89 / 4.0 (as of 5/23/25)

**Flint, MI**

2023 - 2027

**Coursework:** MTH 121 Calculus 1, CSC 137 Fundamentals of Unix, CSC 175 Problem Solving & Programming I, CSC 275 Problem Solving & Programming II, CSC 230 Intro to Discrete Structures, CIS 314 Computer Ethics, CSC 365 Computer Architecture, CSC 375 Data Structures, CSC 377 Operating Systems, CSC 384 Database Design

## Work Experience

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**We Can Do It Graphics**

*Retail Manager / Graphic Design Lead*

**Flint, MI**

2015 - 2023

- Led a 5-person team, overseeing project workflows and optimizing resources to improve operational efficiency.
- Managed end-to-end production of graphic materials, ensuring high-quality outputs while meeting tight deadlines.
- Utilized Adobe Photoshop, Illustrator, and wide-format printing tools to design and produce custom graphics for clients.
- Implemented process improvements that enhanced productivity and reduced turnaround times.
- Developed client-facing solutions, handling consultations and custom orders to align with branding needs.