

Julian Mueller

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Education

University of Michigan - Ann Arbor

Bachelor of Science in Computer Science

Ann Arbor, MI

Aug. 2021 – May 2025

Professional Experience

Control Systems Engineer

Thermo Systems

August 2025 – Present

Atlanta Metropolitan Area

- Built an automated data visualization system using **MySQL and Python (Matplotlib)** to analyze historical test data, **saving 800+ hours annually** in manual reporting
- Optimized legacy AVEVA VBA code by implementing faster, modern, string functions, **speeding up field testing by 60%**
- Configured VLANs on a network switch using Tera Term, **saving 2 months of testing time** and protecting over **\$10 million** worth of data center equipment
- Delivered automation solutions for enterprise clients, translating requirements into control logic and SCADA graphics

Quality Engineering Intern

Manga Steyr

September 2024 – August 2024

Detroit, MI

- Engineered an auditing web app (JavaScript, HTML, CSS), **increasing user capacity by 660%** and **cutting \$300 in monthly costs** by replacing legacy software
- Built a part validity scanner that **identified 500+ defective parts**, improving vendor quality and reducing downstream assembly issues.
- Prepared and presented quality systems data in daily stand up meetings and weekly client meetings

Projects

Storyverse | *Python, TypeScript, LangChain, OpenAPI, FastAPI*

- Led development of a responsive React frontend (Chakra UI, React Hooks) for an AI-based educational tool, improving usability for **100+ student testers**
- Optimized page rendering and component efficiency using React hooks and Chakra UI, enhancing the overall user experience
- Developed a RAG (Retrieval Augmented Generation) system to read and fine tune story prompts in order to deliver age appropriate stories to readers

JGram | *React, Python, Flask, SQLite3, AWS*

- Developed a scalable full-stack Instagram clone using React and Flask with real-time updates, including user auth, image posts, and live interactions.
- Leveraged React.js to render dynamic content, implemented features such as user authentication, pagination, likes, and comments with real-time updates
- Engineered authentication, data retrieval, and user interaction via Flask in a scalable and efficient manner

Back to Life | *Unity 2D, C#, Piskel*

- Created a rogue-like dungeon crawler game that is inspired by the Legend of Zelda
- Implemented random level generation through a crawler script in C#
- Designed characters and items in Piskel and animated them through Unity

Technical Skills

Languages: C/C++, C#, Python, Go, JavaScript, TypeScript, MATLAB, XML, SQL, HTML, CSS, R

Developer Tools: Git/Github, Unix/Linux, VS Code, Visual Studio, GoLand, Jira, Amazon Web Services (AWS), Docker, MongoDB, VirtualBox, Access, Excel

Frameworks: React.js, Express.js, Spring Boot, Flask, FastAPI, OpenAPI, LangChain, Jinja2, Bootstrap, NumPy, Chakra UI, pandas, BeautifulSoup, Selenium, Matplotlib, Coverage.py

Concepts: Software Engineering, Full Stack, Frontend, Backend, Software Quality Assurance, Web Frameworks, Agile/Scrum, REST API