Quentin T. Adolphe
Detroit, MI | qadolphe1@gmail.com | https://qadolphe.com

Education:

Swarthmore College, Swarthmore, PA **Class of 2025**
Major & Minor: Computer Science and Engineering GPA: 3.9/4.0

Work Experience:

General Motors - CFD Automation Engineer **2025 - Present**
- Modernized legacy Tkinter GUI to a React/Electron and Flask monorepo to streamline pre-processing, submission, monitoring, and postprocessing work.
- Built a JSON-driven UI engine with strict TypeScript schemas, shared MUI component library and NPM Workspaces.
- Orchestrated HPC interactions via Flask REST APIs; delivered dashboards and NumPy/Pillow post-processing.
- Engineered a Python analytics framework using Pandas to automate ETL and evaluate tire parameters (stiffness, friction) on vehicle stability, implementing metrics like wheel slip, friction circles, and yaw rate.

General Motors - Software Validation Engineer **Summer 2024**
- Full stack development of Utility File applications, including a custom generator tool to streamline the flash development process.
- Created and automated an application to validate ECU flash process according to Software-Defined Vehicle specifications.

United Services Automobile Association (USAA) - Software Engineering Intern **Summer 2023**
- Full stack development of a modernized life insurance app with database integration.
- Implemented pages with React.js and JSX, and created metadata.

Forward Edge AI - Economic Research Investigator **Summer 2022**
- Wrote a National Science Foundation-funded economics research paper on the business dealings and intricacies of scam centers and criminals around the world.
- Observed on student-led National Security Agency, Cooperative Research and Development Agreement team to assess use cases of NSA's Protocol Free Encryption Device.

Projects: https://qadolphe.com

SwatBloc (Headless Commerce Platform) – TypeScript, Next.js, Google Gemini API
- Designed a type-safe headless commerce SDK within a Turbo monorepo, decoupling core logic from the dashboard to manage products and checkouts.
- Built a Generative UI engine using Google Gemini, allowing users to modify React component properties and generate themes via natural language prompts.

Running Analysis with Machine Learning – Kotlin, TensorFlow
- Used TensorFlow's Thunder convolutional neural network to estimate the position of a sprinter's joints.
- Trained neural network to identify the current phase of a sprinter in motion.

3D Triangulation of Objects – Python
- Calibrated a stereo camera setup to calculate 3D real-world coordinates from 2D images

Interests, Clubs, and Hobbies:

- **Swarthmore College:** Varsity Track and Field, Club Soccer