Matthew Mckee

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[LinkedIn](#) | [GitHub](#) | [Portfolio Website](#)

Experience

Software Engineer | Sivers Photonics   July 2022 - Present

- Developed full-stack CAD automation software for advanced DFB laser design.
- Built internal software reducing product design timelines by over **50%**, improving efficiency and customer satisfaction.
- Used GitHub Actions for CI/CD, ensuring automated testing and consistent deployment workflows.

Software Engineer Intern | JP Morgan   June 2025 - September 2025

Software Engineer Intern | GDSFactory   February 2025 - Present

- Developed and enhanced features in GDSFactory, used in photonic circuit design and fabrication.
- Resolved bugs, improving reliability of widely adopted photonics software.

Software Engineer | Glasgow University Software Service   October 2024 - Present

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Projects

Karva | Python Test Framework, Written in Rust   May 2025 - Present

- Created a highly performant open-source test framework, similar to pytest, written in Rust.

[GitHub](#)

GDSR | GDSII Manipulation Python Package, Written in Rust   Aug 2024 - Present

- Created a performant open-source GDSII manipulation package written in Rust with a Python API.
- Enabled reading, writing, and modifying GDSII files through a simple API.

[GitHub](#)

Open Source Contributions

Over 4000 contributions in the past year

I am very passionate about Python and Rust. In particular, I am invested in the Python typing community, contributing to the Python type checker ty regularly.

Also, with my internship at GDSFactory, I have become a maintainer of the GDSFactory and KFactory repositories.

- [GDSFactory](#) (Maintainer)
- [KFactory](#) (Maintainer)
- [ty](#) (Contributor)

Education

University of Glasgow   2022 - 2026

Bachelor of Science in Computing Science and Mathematics

Technical Skills

Back End: Python, Rust, Java, MongoDB, SQLite, PostgreSQL, FastAPI, Pydantic, C++, C

Front End: React, JavaScript, TypeScript, NodeJS, Tailwind CSS, NextJS

Testing/Deployment: JUnit, Unittest, GitHub Pages, PyTest

Dev Tools: Docker, Git, npm, TDD, nginx