

Kyle Morgan King

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EDUCATION

Georgia Institute of Technology, Masters of Computer Science (4.0/4.0) *Part Time, Expected Dec 2023*

- CS6310 Software Architecture and Design: Individual Java Projects and Group Project in Python with REST API.
- CS6200 Graduate Introduction to Operating Systems: Multithreaded C/C++ Projects with Shared Memory & RPC.

University of Maryland, Bachelor of Science, Bioengineering (*cum laude*, 3.8/4.0) *May 2016*

- Gemstone Honors Program: Full Stack Developer on 13-person team to design a Stationless Bikeshare.
- Bioengineering Capstone: Awarded 1st Place & Social Impact Award for prototype MRI-safe VR Goggles.

EXPERIENCE

MESO SCALE DIAGNOSTICS, LLC: Software Engineer II, Instrument R&D *Sep 2020 - Present*

- Technical lead for three ongoing and any future software projects for the Engineering department.
- Created and maintained product and engineering road maps to foster coordination with other departments.
- Led initiative to modernize internal processes with tooling for CI/CD, VCS, and private package index.
- Designed a data ingestion and visualization framework in Python using pipeline and layered architectures and ported two legacy dashboards to the framework to demonstrate the improved performance and configurability.
- Proposed architectural improvements and built proof of concept to decouple a monolithic codebase.
- Hired a junior employee and fostered that employee's growth by assigning projects and providing feedback.

MESO SCALE DIAGNOSTICS, LLC: Systems Engineer I *Jul 2016 - Sep 2020*

- Led engineering development of a Python software for instrument assembly and repair from initial design and requirements specification to verification and release. Iterated over user feedback and released on schedule.
- Implemented a Python tool to automate customer upgrades for major changes in new company software.
- Prepared and merged over a hundred code reviews with approval by senior engineers.
- Built, improved, and maintained internal dashboards to visualize incoming parts inspection data and to calculate downtime and performance characteristics of automated systems.
- Analyzed CCD camera images to prototype a numeric model that corrected for camera ghosting.
- Investigated instrument alignment errors then designed and released a software tool to apply the correction.
- Integrated a REST API into legacy software and found solutions to support offline use cases.
- Developed control code and fabricated prototype components for robotic sample preparation and pipetting systems.
- Designed a modular Python packaging ecosystem to meet automated motion control and analysis needs.

Maryland MEMS and Microfluidics Lab: Undergraduate Research Fellow *Jan 2014 - May 2016*

- Prototyped temperature-controlled microfluidic droplet generator to produce 30-40 μm diameter agarose beads.
- Create a PID controller and web interface in JavaScript on a Raspberry Pi. Programmed in CNC G-code.

Canon US Life Sciences: Research and Development Intern *Jun 2015 - Aug 2015*

- Prototyped a novel fluidic handling technology and submitted an invention disclosure.
- Applied C and electrical knowledge to develop mechanical control. Conducted image analysis in MATLAB.

OPEN SOURCE

[calciPy](#): Unified suite of tooling for Python projects to standardize developer experience. Used at MSD.

[dash_charts](#): Explored novel OOP approaches for better encapsulation in Plotly/Dash applications.

[Other Contributions](#): Submitted new features and fixes to more than 20 open source Python projects.

RELEVANT SKILLS

Python, Plotly/Dash, Flask, Pandas, OpenCV, PyParsing, Dagster, Docker, REST APIs, SQL, and Git

AWARDS

Spot Award, Recognition of Excellence: Meso Scale Diagnostics *Jan 2020*

Awarded at the discretion of top leadership for my outstanding contributions to the development of an internal tool suite. I went above and beyond to resolve critical gaps in launch readiness, build new capabilities, and ensure a smooth and timely, company-wide product launch in the Spring of 2019.