

Maxwell P. Vaglica

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Professional Summary

Programmer with expertise in Python, cloud computing, SQL, and machine learning. Experience in designing and deploying scalable data pipelines, integrating laboratory devices with databases, and automating workflows to enhance efficiency. Proven track record in building RESTful APIs, optimizing database operations, and developing cloud-based applications. Passionate about leveraging technology to streamline processes and drive data-driven decision-making.

Education

Georgia Institute of Technology, Atlanta, GA

August 2024 - Present

Master of Science in Computer Science (Expected 2026)

Machine Learning Specialization

GPA: 3.9 / 10 Courses

Indiana University, Bloomington, IN

July 2021

Bachelor of Science in Cognitive Science

Two years as research programmer in Newman Memory Laboratory

Skills

- Python
- SQL
- Cloud Computing (GCP, Azure)
- CI/CD
- Machine Learning
- Data Visualization/BI

Professional Experience

Computational Biologist

Oct 2021 – Present

Chicago, IL

- Developed a pipeline for submitting total nucleic acid for sequencing, along with a downstream system to track isolates throughout processing. This system has been in use for over two years by 100+ users across multiple laboratories nationwide.
- Created and maintained large-scale databases handling read/write operations from 30+ concurrent users.
- Integrated laboratory devices with internal databases to reduce server load and eliminate manual data entry.
- Set up web servers to receive HTTPS requests for automated label printing communications in Chicago laboratories.
- Established and implemented RESTful APIs using FastAPI, enabling seamless integration between third-party systems and internal services.
- Designed, developed, and deployed cloud-based web applications for laboratory automation tools and BI dashboards.

Phlebotomist

Feb 2020 – Aug 2021

Bloomington, IN

- Offered extensive knowledge about the process of plasma donation and gave explanations of the biological mechanisms relevant to our procedure.
- Followed safe practices to prevent any contact with blood or accidental penetration of the skin from sharp objects by wearing PPE such as lab coats, face shields, gloves, and more.
- Performed venipunctures to large volume of patients with time constraints.