

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 College of Computing

April 2026

Master of Science in Computer Science

Computing Systems Specialization

3.6 GPA

Indiana University, Bloomington, IN

July 2021

Bachelor of Science in Cognitive Science

Cognitive Science Research Scholarship Summer 2021

Work Experience

Tempus AI

Oct 2021 – Present

Title: Computational Biologist

- Designed and deployed a web-based agentic AI system enabling users to query datasets, generate insights, and execute Python code dynamically using LangChain and OpenAI APIs.
- Built tool-augmented LLM workflows that translate natural language into multi-step data analysis pipelines, including code generation, execution, and visualization.
- Deployed scalable AI applications on Google Kubernetes Engine, supporting concurrent users and real-time agent interactions.
- Designed and maintained backend systems and databases supporting reliable data operations across distributed applications.
- Set up web servers to receive HTTPS requests for automated label printing communications in Chicago laboratories.
- Integrated AI agents with REST APIs and external data systems (FastAPI), enabling autonomous task execution across internal services and databases.
- Built full-stack applications (React + Python) supporting AI-driven analytics, laboratory automation, and business intelligence workflows.

Indiana University - Newman Memory Lab

January 2019 – Aug 2021

Title: Research Software Engineer

- Built deep learning models for video analysis and conducted large-scale data analysis for cognitive science research projects.
- Trained ResNet-50 model with 350,000+ iterations for pose estimation.
- Analyzed 4+ million gameplay sessions for dementia research by developing data processing pipelines for large-scale behavioral datasets.

CSL Plasma

Feb 2020 – Aug 2021

Title: Phlebotomist

- 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.

Skills

- Python
- SQL
- Agentic & Generative AI
- .NET
- Cloud Computing (GCP, Azure)
- RAG
- CI/CD
- C++ / C#
- API Design
- Data Visualization/BI
- Machine Learning
- Algorithm Design