

Aryan Miriyala

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EDUCATION

Bowling Green State University

Master of Science in Computer Science, **GPA: 4.00/4.00**

Bowling Green, OH

Aug. 2024 – May 2026

Bowling Green State University

Bachelor of Science in Computer Science, **GPA: 4.00/4.00**

Bowling Green, OH

Jan. 2021 – Apr. 2024

EXPERIENCE

Data Engineering Intern

May 2025 – Aug. 2025

American Association of Insurance Services

Lisle, IL

- Automated a 100% manual billing process by engineering an **AWS Glue** and **PySpark** job to query a **20+ TB Impala** database, **saving 3-5 weekly manual hours** and **slashing query times from 10+ min to <1 min**.
- Reduced data solutions team's analysis workload by **80%** by **profiling 158 tables** using **Python (Pandas)** and **SQL** to map data relationships, **defining all consolidation rules for the migration**.
- Replaced **158 legacy Pentaho jobs** with a **single AWS Glue (PySpark) pipeline** to migrate and consolidate 158 Impala/Oracle tables into 15 MDM domains, **enabling a new self-service stakeholder application**.
- Orchestrated a daily **AWS Glue Workflow** for the new pipeline, **ensuring a 24-hour data latency** for the Semarchy application and **eliminating all manual data entry** for stakeholders.

Software Engineering Intern

May 2023 – May 2024

American Association of Insurance Services

Lisle, IL

- Engineered the **foundational data model** for **openIDL** (unified view for insurance data), using **Python** to parse taxonomies and implement **1,000s of SQL tables** on **Oracle/PostgreSQL** across **10+ insurance lines**.
- Developed a high-performance **Python** script using **multiprocessing** and **Pandas** to clean and parallel-process massive CSVs, implementing **fuzzy de-duplication** and **data hashing** for 100% data compliance.
- Contributed to a full-stack **React** modernization by implementing **Role-Based Access Control (RBAC)** and **JWT authentication** with **Node.js** to deliver a secure, role-specific landing page for 100+ internal users.
- Automated a 2-person validation process by building a **scheduled AWS Lambda** function that polled database tables, **tokenized PII** using **hashlib/boto3**, and ingested clean **JSON** into S3.

Software Engineering Intern

May 2022 – Aug. 2022

Alliance for Paired Kidney Donation

Toledo, OH

- Ensured **HIPAA compliance** by implementing site-wide **anti-CSRF tokens** for user authentication and protection of patient data.
- Built a **JS/Bootstrap** module to log blood sample data, ensuring data completeness for the matching algorithm.
- Redesigned the responsive **“Match Run”** results page with **Bootstrap** to improve readability of donor chains.
- Reduced page render times by refactoring legacy **JavaScript** for **asynchronous** (**‘async’/‘defer’**) loading.

PROJECTS

Travel Health Advisor | *React, Node.js (Express), MongoDB, Mistral AI, TailwindCSS* [Date of Hackathon]

- Developed a full-stack health app using **React**, **TailwindCSS**, and **Express.js** to provide personalized travel health advisories (e.g., disease risk, precautions) based on user health data and destination.
- Engineered a **RAG** pipeline using **Mistral AI** and **HuggingFace** models to vectorize and query a massive **MongoDB** health database via **cosine similarity search**, powering all personalized insights.
- Built a **Mistral AI** chatbot that leveraged the **RAG** model for conversational insights and generated a dynamic, downloadable travel checklist based on the user's specific health profile.

RocketGrades | *Angular, Node.js, Mistral AI, MongoDB, AWS S3, Auth0, TailwindCSS*

Mar. 2025

- Developed a full-stack LMS web app featuring a **Mistral AI** agent (via **LangChain**) to provide instant, automated assignment feedback, significantly reducing grading time.
- Engineered a secure, scalable backend using **Node.js**, with **Auth0** for role-based access control, **MongoDB Atlas** for data persistence, and **AWS S3** for file storage.

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript/TypeScript, C++/C, C#, PHP

Data Engineering: AWS (Glue, S3, Lambda), Spark (PySpark), Impala, Hadoop (HDFS, MapReduce), Semarchy xDM

Web & Frameworks: React, Angular, Node.js (Express), Pandas, NumPy, LangChain, TensorFlow, PyTorch, TailwindCSS

Databases & Tools: PostgreSQL, Oracle, MongoDB, MySQL, Git, Docker