Arya Garg

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Education

University of Cincinnati   *Cincinnati, OH: Aug 22- May 27*

M. Eng. Artificial Intelligence   **Courses:** Database Design, Algorithms, Programming Languages, Operating Systems,
B.S. Computer Science   Linear Algebra, ML & AI, Data Structures, Computer Architecture, Software Engineering

Experience

Tech Intern: CoreCard ℂ   *Atlanta, GA: Jun 25 - Nov 25*

- Engineered an enterprise chatbot with Office 365 integration (**MSAL**) and a **LangChain/Qdrant** vector DB.
- Developed an AI-powered database migration tool by **fine-tuning** LLMs and building a custom **SQL parser** to translate queries & automate schema transformation.

Data Science: Possip 💬   *Cincinnati, OH: May 23 - Nov 23*

- Deployed a **Flask** & **React** app on **GCP** to automate customer imports, creating a **400% faster workflow**.
- Processed **3M+ records** to onboard **1M+ new users**, optimizing database integrity with new error correction methods.
- Performed **BERT** sentiment analysis on feedback, visualizing insights with **Matplotlib/Pandas**.

Student Researcher: UHP Discover 🅄ℂ   *Cincinnati, OH: May 23 - Aug 23*

- Worked on knapsack problems and video summarization techniques and summarized **50 videos with a 93% f-score**
- Bench-marked transformer models, including LLama, ChatGPT, JasperAI, Dall-E, Imagen, and diffusion models

Technical Leadership & Projects

CubeCats: Vice President [🛰]   *Cincinnati, OH: May 23 - Present*

- Started Project Calico to **teach 50+ freshman students** how to become self-starters & leaders in a high-impact project (detailed analysis of light & air pollution with a ground station for real-time comms)
- Maintained the club website and media-team by modernizing the design and increasing efficiency to boost interest from students and companies looking to collaborate by **1114%**
- **Directing LEOPARD-Sat Project:** 🌍 *C, Proteus, Schematic Design, Systems Engineering*
  - Developed a **NASA-affiliated satellite** to assess the effectiveness of advanced radioactive shielding techniques for long-duration space missions.
  - Develop simulation software for Passive Attitude Determination and Control Systems (ADCS) for CubeSats (partnering with nanoracks), utilizing **Pandas, NumPy, and Scikit-learn** for data analysis with over **50M rows of data**

WhiteBox: 📦 *GCP, Neo4j, Flask, LLM Integration & finetuning, Data Visualization*

- 1st place winner of the Midwest Con - Future of Data Hackathon - 5000$
- Created **70,000 nodes with 140,000 links** to enable conceptual queries beyond raw vector searches, transforming structured data into explainable AI decision.
- Engineered data pipelines with Neo4j and fine-tuned LLMs (LLaMA, MiniLM, Phi3, OpenAI) for structured data retrieval to **reduce hallucinations by 99%**

Memento: 🧠 *GCP, Huggingface, AI Integration, Postgres, RAG*

- Deployed a memory assistant on andriod hosted on GCP, integrating **memory and retrieval based AI responses** to aid Alzheimer's patients. Best Social, Health, Postgres, and 3rd Overall at RevUC

Hackathons: 🅜🅛🅗 *6x Winner across Data Science, AI, and Software Development*

- Led teams through tight deadlines, leveraging **rapid prototyping** and **agile prioritization** to deliver impactful solutions

Skillset

Languages & Development		Technologies & Platforms		Specializations & Methodologies	
Python, Prolog	React.js	Google Cloud	Bash	Neural Networks	Full-stack
JavaScript	Dart & Flutter	Oracle Cloud	Huggingface	Transformers	Unit Testing
C++, C, C#	REST APIs	Azure, AWS	Looker	Machine Learning	Cloud Architecture
HTML, CSS	Microservices	PostgreSQL	Google Analytics	NLP, NLU	Agile Methodology
Go, Haskell	Git, GitHub	SQL, NoSQL	Selenium	Computer Vision	Data Engineering
MATLAB	Docker	GraphQL		**Kerbal Space**	ETL Processes
	Kubernetes	Neo4j (Cypher)		**Program**	