

Appala Dhanush Balireddy

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Location: Fairfax, VA

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EDUCATION

George Mason University

Master in Data Analytics Engineering | GPA: 3.8

Fairfax, VA

Anticipated Dec 2025

Raghu Engineering College

Bachelor in Computer Science | GPA: 3.9

India

06/ 2019 - 05/ 2023

SKILLS SUMMARY

- **Languages:** Python, SQL, JAVA, Postgress, C
- **Frameworks:** Pandas, Numpy, Scikit-Learn, Matplotlib
- **Tools:** Power BI, PowerPoint, Tableau, MySQL, SQLite, AWS(EC2, S3, Lambda, DynamoDB, ECS)
- **Platforms:** PyCharm, Jupyter Notebook, Visual Studio Code, IntelliJ IDEA, Git, Docker
- **Certifications:** AWS Cloud Practitioner, Python Programming, SQL

WORK EXPERIENCE

RESEARCH ASSISTANT

George Mason University

09/2024 - Present

- Improved task queue management in high-performance virtual machine and compute environments by performing requirement analysis and conducting root cause analysis to fine-tune spring and java (open source technologies) based worker allocation algorithms, reducing latency and boosting system efficiency.
- Built an internal bot to assist users in real-time with workflow monitoring and task status updates, facilitating better resource allocation and resolving bottlenecks swiftly. Ensured adherence to secure coding practices and documented design specifications for future scalability.

SOFTWARE ENGINEER INTERN

Lampro Tech LLP

05/2020 - 07/2022

- Implemented a Python driven data pipeline to manage updates for a GraphQL database containing over 500,000 entries, enhancing data integrity and reducing manual input errors by 60%, all within an Agile development environment.
- Built a scalable microservice architecture utilizing AWS services (EC2, ECR, S3, Lambda, DynamoDB) and distributed systems, integrating distributed storage solutions to significantly improve system performance, scalability, and reliability.

PROJECTS

Launch Host | JavaScript, Docker, AWS ECS, S3, Kafka, Redis, Next.js

- Designed and implemented a scalable cloud hosting platform leveraging Docker, AWS ECS, S3, and CDN to enable efficient, parallelized code deployments directly from GitHub with enhanced scalability. Configured a reverse proxy for hosting and output mapping, integrating Kafka and ClickHouse DB for robust log collection and real-time data processing.

Interactive AI-Driven Transaction Processing System with AWS DynamoDB

- Developed an AI-driven chatbot using Large Language Models (LLMs) integrated with AWS DynamoDB for real-time transaction processing. Leveraged OCR models and OpenAI APIs for text extraction and structured data generation. Enabled dynamic database updates, intelligent issue resolution, and seamless transaction confirmation.

LEADERSHIP

Core Contributor

Google Developers Group

07/2021 – 03/2023

- Led technical events and managed 300+ members, securing sponsors and onboarding 12+ industry partners to scale community initiatives. Organized hackathons, coding bootcamps, and Google Cloud/Android workshops with 150+ participants, fostering hands-on learning and peer collaboration.

Vice-President

Computer Society of India

07/2020 – 03/2022

- Directed the CSI student chapter with a core team of 15+ student members, spearheading 10+ technical workshops, coding hackathons, industry seminars, and events with 400+ active participants.