Jasmitha Pissay Narayana

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EDUCATION

Masters in Computer Engineering, **New York University | GPA: 4.0/4.0** **Sep 2024 - May 2026**

Bachelors in Electronics and Communication Engineering, **PES University | GPA: 3.5/4.0** **Aug 2018 - May 2022**

SKILLS

Languages: Python, Java, Scala, JavaScript, C++, Go, Django, Spring boot, Node.js, React.js

Database/Data analytics: PostgreSQL, MySQL, Oracle, NoSQL MongoDB, Apache Spark, Hadoop

Machine learning/Data Science: Pandas, Numpy, Scikit-learn, OpenCV, Tensorflow, Keras, Pytorch, Transformers, GPU

Cloud/Operating systems/Version control: Amazon Web Services (AWS), Git, Docker, Linux/Unix, Ubuntu, Shell scripting

WORK EXPERIENCE

SDE Intern, ***Amazon*** **May 2025 - Aug 2025**

- Processed **conversational AI interaction data** (Alexa, Rufus, InterestAI) to extract customer interests and deliver **personalized homepage deals**, driving a **35% increase in engagement** during **A/B experiments**
- Designed and implemented scalable **batch inferencing** pipelines using **AWS Bedrock LLMs**, reducing API latency from **10 minutes/100 rows to 15 minutes/23,000 rows**, improving system throughput
- Built scalable customer **personalization datasets** and **containerized** workflows with Docker, **orchestrated via AWS SageMaker AI pipelines**, automating deployments and reducing dataset generation time **from 30 hours to 7 hours**

Big Data Course Assistant, *New York University* **Jan 2025 - May 2025**

- Developed assignments and course materials on database technologies like **MongoDB, MySQL** and big data frameworks such as **Apache Spark, Apache Hive, Hadoop, Pandas** enhancing **student engagement by 60%**

Software Development Engineer II, *Sandvine Incorporated* **Dec 2022 - Aug 2024**

- Designed data ingestion **SQL queries in RESTful API endpoints** to filter internet activity logs (application, category, bytes, date range), improving **query performance by 85%**
- **Decreased latency by 60%** between **microservices** by implementing **read-only query caching** using **Redis** between services and PostgreSQL
- Implemented **information security** algorithm for **packet inspection** to extract IP addresses, networking protocols (**TCP/IP, UDP, Ethernet, OSI**), and payloads from PCAP files via **DNS** queries, improving correlation **accuracy by 35%**

Software Development Engineer, *Sandvine Incorporated* **Jun 2022 - Nov 2022**

- Collaborated **cross-functionally** with **DevOps** to develop and integrate comprehensive **regression and unit tests** with 100% code coverage into **CI/CD pipelines**, reducing **debugging time by 60%**
- Architected the **system integration** of multiple **SaaS microservices** by developing a **fault-tolerant**, socket-based **message queue** between them which decreased **system downtime by 75%**

R&D Trainee, *Sandvine Incorporated* **Jan 2022 - May 2022**

- Developed a **microservice** to combine GeoIP and network traffic data to **process ~700 million records**, achieving **accurate geolocation tagging** of the person of interest through their IP addresses **within a 100-meter radius**

PROJECTS

Target Profiling: Identity Matrix **Nov 2022**

- Designed an innovative **correlation analytics model** and **web services** to link multiple digital identities from a single identity using regulatory data, enabling law enforcement agencies to track targets with **95% precision**

RESEARCH PUBLICATIONS IN DEEP LEARNING

"**Design and Evaluation of a Real-Time Stock Inventory Management System**," *2023 IEEE 5th International Conference on Cybernetics, Cognition and Machine Learning Applications (ICCCMLA), Hamburg, Germany, 2023, pp. 180-185.* [link]