

AKSHITHA ADEPU

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Education

University of Florida

Aug 2022 – May 2024

Master of Science in Computer Science **GPA: 3.73/4.00**

Gainesville, FL

Coursework: Analysis of Algorithms, Advanced DSA, Machine Learning, Human-Computer Interaction

VNR Vigyana Jyothi Institute of Engineering and Technology

Aug 2018 – May 2022

Bachelor of Technology in Computer Science and Engineering **GPA: 3.77/4.00**

Hyderabad, India

Coursework: Data Structures, Object Oriented Programming, Operating Systems, Cloud Computing

Technical Skills

Languages: C, C++, Java, Python, JavaScript, Go, Scala, MATLAB

Databases: SQL, PostgreSQL, MySQL, MongoDB, Oracle DB, Cassandra, SQLite

Tools and Frameworks: AWS, Azure, Kubernetes, Docker, Kafka, PySpark, Tableau, PowerBI, React, Angular, Redux, Django, Spring Boot, Hibernate, Express.js, jQuery, REST APIs, JWT, Selenium, JUnit, CI/CD (Jenkins), Git, Jira

Experience

Software Engineer | Python, Tensorflow, Django, React

May 2023 - Present

University of Florida, Department of Medicine

Gainesville, FL

- Engineered a **TensorFlow-based CNN model**, improving BreakHis dataset image classification accuracy to **90%**, driven by stakeholder requirements for higher diagnostic precision.
- Overhauled **NLP model** F1-scores by **15%** with scikit-learn, enhancing sentiment analysis and text categorization.
- Integrated **computer vision** into a Django app, reducing deployment time by 30% and enhancing detection capabilities.

Graduate Assistant | Python, PostgreSQL, scikit-learn, PyTorch

Aug 2023 - Dec 2023

University of Florida, College of Engineering

Gainesville, FL

- Developed state accreditation **Data Science** and **AI curriculum**, impacting **1,000+** students with ML projects.
- Authored Python Notebooks for **500+** students, clarifying AI algorithms and **OOP**, boosting AI/Data Science interest.
- Formulated and instructed SQL modules with Kaggle, engaging students for data challenges and fostering AI innovation.

Software Engineer | Azure (AKS, ACR, DevOps), Docker, Kubernetes

Aug 2022 - Apr 2023

University of Florida

Gainesville, FL

- Migrated **MERN** app to a microservices architecture on **Azure** with **Docker** and **Kubernetes**, improving scalability by **40%** and streamlining deployment processes. Enhanced MongoDB performance, cutting query times by **25%**.
- Designed and deployed **CI/CD pipelines**, automating testing and deployment to reduce cycle times by **60%**.
- Achieved **99.9%** system uptime by actively monitoring and resolving over **50** distributed system issues with **Prometheus** and **Grafana**.

Software Engineer Intern | React, REST API, Oracle DB, AWS (S3, IAM)

Feb 2022 - Jul 2022

JP Morgan Chase & Co.

Hyderabad, India

- Architected a **React.js** UI and optimized state management, leading to a **20%** increase in transaction volume and enabling cashback transactions over **\$1M** through **RESTful Spring Boot** middleware.
- Enhanced DB performance, reducing query times by 40%, facilitating timely reward distributions for over **200,000** users.
- Led migration from JPMC's internal cloud GAIA to **AWS S3**, integrating stringent data checks and **AWS IAM** to strengthen security measures.

Software Engineer Intern | Angular, AWS (RDS, CodePipeline, CloudWatch)

May 2021 - Jul 2021

JP Morgan Chase & Co.

Hyderabad, India

- Architected analytical system for issue analysis, risk management, and solution oversight catering to **100,000+** clients.
- Executed interactive visualization interface using **Tableau** and **PowerBI**, achieving **75%** client adoption for streamlined analytics presentation.
- Optimized database performance by **25%** using **Spring Boot** and **Hibernate**, and integrated **Selenium** and **JUnit** testing, reducing deployment times by **40%** while ensuring reliability for millions of users.

Projects

Twitter Engine Simulator | Erlang, Actor Model, WebSocket, JSON APIs

- Engineered a high-performance, real-time tweet processing engine using **Erlang** and **WebSocket**, supporting **10,000** concurrent users.

Detection of Dementia | Python, Machine Learning, Django, React, AWS (EC2, S3, Redshift)

- Built a Python web app on **AWS** for personalized dementia care, enhancing patient well-being by **30%**.

Driver Fatigue Detection | Python, Machine Learning, Django, React

- Implemented an AI system to detect driver drowsiness with **90%** accuracy, reducing fatigue incidents by **25%**.

DevConnector: Social Network for developers | MongoDB, Express.js, React, Node.js, JWT, Redux

- Created a MERN stack social network with **25,000+** users, featuring real-time updates and ML-based recommendations.