Venkatesh Addala

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Education

University Of Central Florida	August 2024 - May 2026
Master of Science in Computer Science	4/4 CGPA, Orlando, USA

Technical Skills

- **Programming Languages:** Java, Python, Scala, ReactJS, MongoDB, SQL, PostgreSQL, Linux
- **Cloud & Big Data:** AWS, Azure Databricks, Snowflake, Kafka, Apache Airflow, Spark, Apache NiFi, Spark SQL, Hive, ETL
- **Tools:** Git, Postman, Maven, SBT, VS Code, IntelliJ, STS, OBIEE, JIRA, SSIS, DBeaver
- **Technologies/Frameworks:** Full stack Web Development, Spring-Boot, Micro Services, OAuth2, LLMs, Spring Cloud, Spring OpenFeign, Spring Eureka, Spring AI, AI/ML, Bootstrap, AWS glue, Docker, CI/CD, Kubernetes, Azure ADF pipelines.

Professional Experience

University of Central Florida — August 2025 - May 2026
Graduate Research Assistant — Orlando, USA

- **Architected a Playwright (Chromium) + MCP automation** framework to batch-export **Canvas LMS SpeedGrader artifacts** and scratch sheets into canonical, **UCF-ID-keyed PDFs**, delivered via a secure **Python/Flask web portal.**
  - **Piloted with 50 students,** reducing grader **workload by >90%** and **turnaround from 30-40 minutes to 2-3 minutes**, with zero access or retrieval errors across 100+ files.
  - **Co-authored an ASEE 2026 paper** (ID 51179) on this automation project titled **"ReQuillify: A Learner-Driven Facility for Building Remediation Capacity in STEM Courses."**
- **Delivered scalable, reproducible analytics** by architecting a **thread-parallel, end-to-end NLP pipeline integrating LLMs, sentence-embedding–based** semantic similarity aggregation, **unsupervised topic modelling (NMF)**, and statistical visualization.
  - **Quantitatively assessed AI proficiency, adoption attitudes, integration depth, and workforce readiness** in hospitality and tourism education based on student discussion posts and **submitted as a peer-reviewed abstract to the 4th Annual Teaching and Learning with AI Conference (UCF) as a co-author**.
- **Tech Stack: Python, Flask, Playwright (Chromium), MCP Automation, LLMs (Mistral, Qwen, LLaMA), NLP, Pandas, Matplotlib**

Impetus Inc. — May 2022 - June 2024
Software Engineer — India

- Elevated processing **performance by 45% and scalability by 52%** through converting **SAS** Stored Procedures **to PySpark on Databricks.**
- Improved **query performance by 72%** and reduced **storage costs by 63%** by streamlining **Informatica and Teradata** workflows during migration to **Snowflake** and integrated it with OBIEE visualization tool.
- Modernized **SSIS workflows** by transitioning to cloud-based ETL pipelines on Databricks with Python, PySpark, and Spark SQL, improving execution times by **49**% and ensuring high data accuracy.
- Conducted POCs on **AWS Glue**, Crawlers, Triggers, Blueprint, S3, **Redshift** and **Delta Lake pipelines**, showcasing modern ETL tool capabilities and securing new projects.
- **Tech Stack: Python, PySpark, SQL, Snowflake, Databricks notebooks, Oracle visualization tool(OBIEE), Informatica, Teradata, SAS**.

Exafluence Inc. — August 2020 - May 2022
Junior Software Engineer | Software Engineer — India

- Played a crucial role in developing the **EXF-FHIR Full Stack** application managing over **200 million healthcare records** with **RESTful APIs** for **CRUD** operations and version control.
- Implemented **Spark** and **Kafka ETL** modules for batch and real-time data ingestion, transforming data in compliance with **HL7 FHIR** standards and seamlessly integrating it with EXF-FHIR application.
- Redesigned and fine-tuned the **1199 Enterprise** Data Warehouse Modernization project by converting complex SQL stored procedures containing **intricate row-level looping logic** into scalable ETL workflows boosting **processing** efficiency **by 74%** and upgrading system **scalability by 39%**.
- Developed and deployed **web applications**, ensuring high performance and reliability, while overseeing end-to-end deployment and maintenance of application instances.
- **Tech Stack: Java, Spark, SQL, Hive, Airflow, Spring Boot, Kafka, Dataproc, MongoDB, ReactJS, Python, SSIS, Postman, CI/CD**

Awards and Certifications

- Received the **Prathibha Merit Award** from the Chief Minister of Andhra Pradesh | 2017
- Awarded a **Gold Medal** for Valedictorian Honors, presented by the College Dean, for outstanding academic achievements | 2018
- Honored with the **Technical Excellence Award** by Exafluence for exceptional performance in technical projects | 2021
- Certified as a **MongoDB Developer (C100 Dev)** and **Databricks Certified Developer for Apache Spark** | 2021,23
- Completed **Career Essentials in Generative AI** Certification by **Microsoft and LinkedIn** | 2024