

Venu Siddapura Govindaraju

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SUMMARY

AI Researcher and Data Engineer with over 4 years of IT experience in developing scalable machine learning solutions and cloud-based data pipelines. Experienced in end-to-end model development, deployment, and delivering data-driven insights through collaborative research and engineering projects.

SKILLS

Programming & Frameworks	Python, SQL, R, PySpark, TensorFlow, PyTorch, Scikit-learn, NumPy, Pandas, OpenCV
Machine Learning & Deep Learning	Supervised and Unsupervised Learning, CNNs, Transfer Learning, Multimodal Learning, Adversarial Training, Model Evaluation
Natural Language Processing & LLMs	Large Language Models (LLMs), Prompt Engineering, Zero-shot & Few-shot Learning, Sentiment Analysis, Conversational AI, Chatbot Evaluation Metrics
Data Engineering & ETL	Azure Data Factory, Azure Synapse Analytics, Azure Databricks, Apache Airflow, SSIS, Talend, Data Modeling, ETL Automation
Cloud & DevOps	Microsoft Azure (Synapse, Data Lake, Event Hub, Azure ML), AWS (S3, Redshift, Glue), GCP (BigQuery, Dataflow), Docker, Kubernetes, GitHub Actions, Jenkins, CI/CD Pipelines
Visualization & Databases	Power BI, Tableau, PostgreSQL, MySQL, MongoDB, Cassandra, Azure SQL, Dimensional Modeling, Star/Snowflake Schema Design
Responsible AI & Research	AI Ethics, Privacy & Fairness, Regulatory Compliance, Human-Centered AI, User Studies, Quantitative Evaluation, Experimental Design
Tools & Collaboration	Git, Linux, Jupyter, VS Code, Technical Documentation, Research Communication, Cross-functional Teamwork, Project Presentation

WORK EXPERIENCE

AI Researcher — University of Naples Federico II, Naples, Italy Dec 2024 – Nov 2025

- Worked as part of the university's AI research team focusing on biometric security, multimodal authentication, and adversarial robustness in deep learning.
- Led and contributed to international research projects including: LivDet 2025 – Fingerprint Liveness Detection and BIOVID 2025 – Lip–Audio Authentication.
- Collaborated with multidisciplinary teams of AI researchers, data scientists, and engineers to design and deploy scalable deep-learning systems on Azure cloud with CI/CD pipelines using Docker and GitHub Actions.
- Responsible for model development, experimentation, and end-to-end pipeline integration covering data preparation, training, evaluation, and deployment.
- Presented the BIOVID Lip–Audio Authentication project at the ICIAP 2025 Conference and achieved **2nd place globally** in the BIOVID Challenge.
- Co-authored a peer-reviewed publication arising from this work (see Publications section).

AI Chatbot Developer (Internship) — Fiven, Remote

Jan 2024 – Dec 2024

- Worked as an AI Chatbot Developer on the project “*Real-World Chatbot Performance Measurement and Self-Training*”, focusing on LLM-based customer support systems.
- Contributed to research, development, and evaluation of conversational AI solutions, collaborating with multidisciplinary teams of AI researchers and engineers.
- Designed, developed, and tested chatbot pipelines using Python, applying prompt engineering, zero-shot learning, sentiment analysis, and conversational style adaptation.
- Implemented quantitative evaluation methodologies based on Natural Language Processing (NLP) metrics to assess chatbot quality, personalization, readability, and response complexity.
- Conducted user studies with real users to validate chatbot performance in real-world application scenarios.
- Contributed to analyses on ethical, regulatory, and responsible AI aspects, with particular attention to privacy, fairness, and regulatory compliance.
- Demonstrated strong autonomy, reliability, and professionalism, delivering complete technical documentation and the final project report within agreed timelines.

Junior Data Engineer — Graded SpA, Naples, Italy

Jun 2023 – May 2024

- Worked as part of the data engineering team to build and maintain end-to-end data pipelines for real-time monitoring of weather and radiation sensor networks.
- Designed and implemented scalable ETL workflows using Azure Data Factory, Azure Synapse, and Databricks for ingestion, transformation, and storage of large sensor datasets.
- Developed predictive machine learning models in PySpark and Azure ML to estimate energy efficiency and optimize energy consumption patterns across smart-building systems.
- Deployed analytics solutions to Azure cloud using CI/CD pipelines and containerized environments with Docker and GitHub Actions.
- Collaborated with business analysts and energy managers to deliver interactive Power BI dashboards that provided actionable insights for operational decision-making.
- Contributed to performance optimization and cost reduction by improving data processing throughput and automating daily ingestion and reporting workflows.

Data Analyst — V A Solutions Pvt Ltd, Hyderabad, India

Aug 2019 – Dec 2021

- Worked across SQL development and data analysis to support daily business operations.
- Designed and maintained ETL workflows using Azure Data Factory.
- Created dashboards and reports in Power BI for data-driven decision-making.
- Ensured data accuracy and optimized SQL queries for better performance.

PUBLICATIONS

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- V. Siddapura Govindaraju, et al. *Multimodal Biometric Authentication Using Lip Motion and Spoken Passphrases*. In: *Proceedings of the International Conference on Image Analysis and Processing (ICIAP)*, Springer, 2026. DOI: [10.1007/978-3-032-11381-8_45](https://doi.org/10.1007/978-3-032-11381-8_45)

EDUCATION

Master's in Human-Centered Artificial Intelligence University of Naples Federico II, Italy <i>Final Grade: 110/110 (cum laude)</i>	Oct 2023 – Dec 2024
Master's in Data Science University of Naples Federico II, Italy <i>Final Grade: 108/110</i>	Oct 2021 – Mar 2024
Bachelor of Engineering in Computer Science and Engineering Nitte Meenakshi Institute of Technology, India <i>Final Grade: 8.4/10 CGPA</i>	Aug 2016 – Jul 2019

CERTIFICATIONS

- Python: Beginner to Advanced for Data Professionals — Codebasics (Jan 2026)
- Academy Accreditation – Databricks Fundamentals — Databricks (Oct 2025)
- Introduction to Neo4j Graph Data Science — Neo4j (Oct 2025)
- Microsoft Azure Data Fundamentals (DP-900) — Microsoft / Coursera (Feb 2025)
- Create Machine Learning Models in Microsoft Azure — Coursera (Mar 2025)
- Machine Learning in Production — DeepLearning.AI (Aug 2024)
- Power BI for Data Analysts — Microsoft Press / LinkedIn Learning (May 2024)
- Getting Started with Microsoft Azure — LinkedIn Learning (Jun 2024)
- Database Engineer / DBA (MySQL, MongoDB, SQLite) — Udemy (Sep 2023)

LANGUAGES

English (Professional Proficiency)
Italian (Conversational Proficiency)
Hindi (Native Proficiency)
Kannada (Native Proficiency)
Telugu (Native Proficiency)

INTERESTS

Artificial Intelligence Ethics and Responsible AI
Data Engineering and Cloud Computing
Deep Learning for Biometrics and Authentication
Chess, Traveling