Deepika Reddygari

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EDUCATION

George Washington University — Washington, DC
Master of Science, Data Science (GPA: 3.9) — expected December 2025
Relevant Coursework: Data Mining, Machine Learning, Data Science, Cloud Computing, Data Warehousing, NLP,Big Data analytics

Jawaharlal Nehru Technological University — Kurnool, India
Bachelor of Technology, Mechanical Engineering (GPA: 8.01/10.0) — July 2021
- Published two papers at 2019 Postgraduate Colloquium of Environmental Research, Nottingham University, Malaysia; won first place in paper presentation

TECHNICAL SKILLS & CERTIFICATIONS

Programming: Python, R, SQL, NoSQL
Machine Learning & AI: NLP, LLMs, TensorFlow, PyTorch, Hugging Face
Technologies & Tools: Apache Hadoop, Spark, Git, Docker, Linux, MongoDB, Power BI
ETL and Data Tools: informatica PowerCenter, informatic Cloud, SQL, Oracle
Cloud & Big Data: Cloud AI Technologies, HPC Clusters, ETL Pipelines, Data Warehousing
Certifications: Applied Data Science with Python Specialization, Big Data, Cloud Computing

PROFESSIONAL EXPERIENCE

Graduate Teaching Assistant — Washington, DC
George Washington University — Aug 2025 – Present
- Assist students in understanding core concepts of algorithm design, data structures, and computational problem solving.
- Conduct weekly office hours and one-on-one mentoring sessions to clarify doubts and reinforce learning.
- Collaborate with course instructors to prepare instructional materials, assignments, and assessments.

Graduate Research Assistant — Washington, DC
LAiSER | The George Washington Institute of Public Policy — Jan 2025 – Jul 2025
(in partnership with Texas Workforce Commission, Walmart, and the Gates Foundation)

- Conducted literature reviews, synthesized scholarly research, and analyzed large datasets and Taxonomies (LightCast, OSN, O*NET) for workforce and education policy projects.
- Coordinated multi-partner research projects with stakeholders including the Texas Workforce Commission, Walmart, and the Gates Foundation.
- Prepared technical reports, summaries, and visualizations for both technical and non-technical audiences.
- Refactored code for pre-releases and streamlined documentation processes for minor/major software releases, enhancing efficiency.

Systems Engineer — Chennai, India
TATA Consultancy Services — Aug 2021 -Dec 2023

- Received "Star of the Month" award for proactively resolving a critical production issue by identifying and fixing code errors.
- Developed and maintained ETL pipelines using Informatica Cloud & PowerCenter, integrating large-scale datasets.
- Automated data workflows using Python, R, and UNIX scripting, significantly improving efficiency.
- Implemented real-time dashboards and data-driven reporting using Power BI & SQL.

PROJECTS AND RESEARCH

Thermal Energy Storage (TES) Study *(Ongoing)*
GWU, Washington, DC

- Investigating combined sensible and latent heat storage systems for renewable energy integration and climate adaptation strategies.
- Analyzing phase change materials (paraffin, stearic acid) for waste heat recovery applications.
- Conducting experimental fabrication and Python-based modeling, quantifying discharge efficiency, temperature sensitivity, and CO_2 reduction potential.

Poster Presentation: *Data-Driven Analysis of a Stearic Acid Thermal Energy Storage System for Diesel Exhaust Heat Recovery* - 7th Battery and Energy Storage Conference, 2025

- Conducted experimental study on stearic acid PCM for diesel exhaust heat recovery.
- Modeled thermal behavior and discharge efficiency using Python.
- Quantified CO_2 reduction potential and system performance improvements.

Classification of Mathematical Problems Using NLP – GWU, Washington, DC

- Applied classical ML & Transformer models to classify math problems into 8 categories.
- Conducted data preprocessing, model evaluation, and documented reproducible workflows.

PUBLICATIONS

- Fabrication and Study of PCM-based Waste Heat Recovery System – *POCER 2019, Nottingham University*
- Thermal Energy Storage System Performance Using PCM-Variable Heat – *POCER 2019, Nottingham University*

LEADERSHIP & Volunteer Experience

Operations Lead, Google Developer Groups   August 2024 – Present
- Organized and led ML/AI workshops with 100+ participants; coordinated logistics, speaker engagement, and training materials.
- Managed event promotion and social media content to increase participation and outreach.

Founder – Renewable Energy Hackathon (GWU)   2024Dec

- Conceptualized and launched a sustainability-focused hackathon, attracting 60+ students.
- Mentored teams on prototyping (microgrids, solar monitoring), with one team advancing to a national competition.
- Balanced logistics, fundraising, and technical mentoring, an exercise in experimentation and perseverance.

Volunteer, IEEE Student Chapter | Event Coordination and Support   Jan 2018 – May 2020
- Coordinated hackathons and technical events, handling scheduling, stakeholder communication, and post-event reporting.