







HRITVIK GUPTA

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EDUCATION

University Of California, Riverside

Riverside, CA

Master of Science Computer Engineering | GPA:3.6/4.0

Sep 2022 - Dec 2023

Coursework: Compiler, AI, Computer Architecture, DBMS, Distributed Computing, Big Data, cybersecurity, GPU, Data mining.

Geetanjali Institute Of Technical Studies

Udaipur, India

Bachelor of Technology Computer Science & Engineering | GPA: 9.25/10

Aug 2018 - Sep 2022

Coursework: Data Structures, AI, Distributed Systems, Mathematics, Statistics, Software engineering, Cloud Computing, Databases.

SKILLS

Languages: Python, C++, Java, JavaScript, Typescript, HTML5, CSS3, Kotlin, SQL, C#, PHP, R.

Frameworks: Tensorflow, PyTorch, React.js, Angular, Vue, jQuery, Cuda, Node.js, MongoDB, GCP.

Technologies: Git, AWS S3, Sagemaker, Machine learning, Deep learning, NLP, computer vision, Linux, Agile.

Data Skills: Numpy, Pandas, NLTK, Matplotlib, Seaborn, Scikit-Learn, Tableau, Spark, Matlab, Probability Theory.

WORK EXPERIENCE

Gradute Research Assistant

Sep 2023 - Dec 2023

University of California, Riverside

Riverside, CA

- Built AI-based social media chatbots for real-time customer engagement, achieving 45% faster response time.
- Conducted LLM research with Transformer algorithms, improving text coherence, achieving 30% enhanced accuracy.
- Streamlined deployment of Transformer models on AWS with Docker, enhancing resource efficiency by 20%.

Research Intern

March 2021 - May 2022

Indian Institute Of Technology Roorkee

Roorke, India

- Led AI research in frontal cognition, enhancing system efficiency by 75% with advanced EEG and NLP.
- Designed signal processing workflows for EEG data, reducing errors by 30% focusing on data quality.
- Focused on optimizing TensorFlow frameworks for LLM, incorporating probability and optimization algorithms.
- Collaborate with 4 PhD scholars, co-authoring a publication featured in an IEEE Journal, leading to 50+ citations.

PROJECTS

End-to-End Machine Learning Application on AWS and Digital Ocean | [link to project](#)

Jan 2024

- Designed pneumonia detection model with ResNet and computer vision, achieving 95% accuracy on given dataset.
- Employed AWS SageMaker, S3, Lambda, and API Gateway for streamlined ML operations and model deployment.
- Developed Next.js web app with Node.js, Express, MongoDB on Digital Ocean, integrated AWS endpoints.

Personalised GPT: Streamlit-Based Application | [link to project](#)

Jan 2024

- Developed Streamlit app with LLMs and vector database for resume QA, achieving 70% better query efficiency.
- Integrated advanced ML techniques like vector databases and LLM fine-tuning with HuggingFace, Langchain.
- Deployed Docker container on AWS Lambda for application scalability, achieving a 25% faster deployment times.

Flu Trend Analysis via PySpark and GeoPandas | [link to project](#)

Dec 2023

- Built a user-friendly web interface powered by Tableau, enabling intuitive exploration and analysis of flu trends.
- Scaled flu trend analysis by 80% data granularity with PySpark GeoPandas, pre-processed on Apache Hadoop.
- Leveraged AWS S3-stored flu data to train an ARIMA model for California, generating informative heatmaps.

Hybrid Text Summarization Using LDA and T5 | [link to project](#)

May 2023

- Enhanced frameworks for text summarization, integrating LDA and T5 to improve ROUGE scores by 75%.
- Implemented attention mechanism with custom callbacks and Normalization, decreasing loss per epochs by 40%.

EXTRA-CURRICULAR

- Author of 3+ research featured in IEEE journals in NLP with 75+ citations, signifying notable field impact.
- Taught 200+ students in Python, JavaScript, and Data Structures; also started a [Youtube](#) channel on AI and NLP.

PUBLICATIONS

- [1] M. Gupta, H. Patel. [Extractive Text Summarizer with Elmo](#). In [2020 4th I-SMAC](#), pages 829–834, 2020.
- [2] M. Gupta, H. Patel. [Text Summarization: LSA Topic Modelling with BERT](#). In [2021 Int. Conf. on AI Smart Systems](#), pages 511–517, 2021.
- [3] S. Gupta, H. Kalla. [Micro State EEG Analysis via RNN](#). In [2021 i-PACT](#), pages 1–6, 2021.