Anmol Singh

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SUMMARY

Certified in Generative AI with Large Language Models by DeepLearning.AI and Google Data Analytics Professional Certificate. Skilled in leveraging Large Language Models (**LLM**) and transformers for advanced AI tasks. Proficient in **Python**, **SQL**, **Tableau** and **MS Excel**. Experienced in **DevOps** and machine learning, specializing in infrastructure **optimization**, **CI/CD pipelines**, **data pipelines**, **IaaC tools**, **container orchestrations** and configuration management.

PROFESSIONAL EXPERIENCE

IBoss Technologies

Software Engineer ***Feb2023 - Jul2023***

- Successfully transformed SQL syntax to another format with precision, leveraging a custom LLM model developed using PEFT. Achieved a 25% increase in efficiency while harnessing Google Vertex AI's advanced capabilities to seamlessly manage blob data within databases.
- Developed and deployed generative AI models, such as GPT and BERT, on AWS using Python, leading to a 20% improvement in analytics accuracy and streamlining model lifecycle management.
- Employed advanced tools from the AWS suite for continuous integration and continuous deployment (CI/CD) of machine learning models, ensuring swift and dependable release cycles adhering to rigorous quality standards.
- Achieved a remarkable 30% increase in productivity and unparalleled client satisfaction by seamlessly integrating AWS Comprehend and Python into our email system, revolutionizing our workflow with a sentiment analysis powerhouse. This transformation streamlined customer needs extraction and optimized team assembly by leveraging our existing skill matrix.
- Accomplished an astounding 50% reduction in error resolution time, significantly enhancing system reliability and performance, by masterminding the analysis of diverse server log files—Tomcat, Nginx, Wildfly, Apache—using Datadog and AWS CloudWatch. Implemented a finely-tuned decision tree model to streamline the process.

Qualitest Group

DevOps Engineer ***Jun2021-Feb2023***

- Slashed response times by 80% ensuring swift and secure API responses for further usage. This was achieved by replacing the Lambda function URLs with AWS API Gateway and boosting the authentication and validation capabilities.
- Skillfully configured and optimized a robust infrastructure on AWS, integrating over 20 EC2 instances, VPC, load balancers, API Gateways, RDS, and Route53. This meticulous setup guaranteed unparalleled high availability and scalability, laying a solid foundation for our services.
- Developed custom shell scripts for vulnerability analysis, which led to the identification and rectification of 30% more security vulnerabilities compared to traditional methods. This proactive approach safeguarded our systems and data, mitigating potential threats effectively.
- Streamlined infrastructure deployment for over 50 microservices using Terraform and Ansible, adhering to best practices in configuration management. This automation not only expedited the deployment process but also optimized resource utilization, ensuring efficient operations across the board.

Foxmula

Machine Learning Intern ***Dec2020-Apr2021***

- Implemented Multi-Armed Bandit solutions at Netflix, exploring alternate approaches like epsilon greedy before concluding that the Upper Confidence Bound (UCB) algorithm provided the best results, yielding a 96% model accuracy for optimizing recommendation systems and enhancing user engagement.
- Applied principles of optimism under uncertainty, UCB drove incremental improvements in personalization tasks.

PROJECTS

Drop.SQL *(Data Science)*

- Integrated N-shot inference techniques in prompt engineering and PEFT to improve query accuracy, while deploying the project on google's Vertix AI. Deployed Gemini Pro, fine-tuning it on a Prompt-Query dataset from Kaggle.

Topological Data Analysis of Cancer Data (*Data Science*)

- Implemented persistent homology algorithms to compute topological descriptors and features from cancer datasets, capturing intrinsic shape characteristics like connected components, loops and voids that are robust to noise.

LawLinker | Knightshack VI (*WebApp/Data Analytics*)

- Hackathon winning project in which OpenAI's whisper model was used to build a website translating legal cases into multiple languages for clients. Created interactive dashboards extracting insights on incident types, safety assessments and compensation figures

SKILLS AND TECHNOLOGIES

- **Machine Learning:** Computer Vision, Neural Networks, ML Modelling, LLM, Transformers, GenAI, Prompt Engineering, Fine Tuning, Tensorflow, Keras, OpenCV, Scikit Learn, Natural Language Processing
- **Data Science:** Tableau, SQL, Data Analytics, Statistical Analysis, MS Excel, Matplotlib
- **Programming Languages:** Python, Shell, SQL, YAML, C++
- **DevOps Tools:** Linux, Git, Jenkins, Docker, Kubernetes, CI/CD pipeline, AWS, Azure, GCP, DataDog, Terraform, Shell
- **Others:** Unity, Jira, XMatter, Django, MySQL, Leadership, Collaboration

EDUCATION

University of Central Florida, *Masters of Science in Computer Science* ***Expected May 2025***

Relevant Courses: Machine Learning, Design and Analysis of Algorithms, Virtual Reality, Machine Learning in BioInformatics

Noida Institute of Engineering and Technology, *Bachelor's of Technology* ***August 2017 - August 2021***

Relevant Courses: Data Structure and Algorithms, Machine Learning, Artificial Intelligence, Cloud Computing, Python, Database Management Systems, Natural Language Processing

CERTIFICATIONS AND ACHIEVEMENTS

Google Data Analytics Professional Certificate ***Mar 2024***

Generative AI with Large Language Models by DeepLearning.AI ***Mar 2024***

Winner of the Morgan and Morgan LegalTech Innovation challenge at Knightshack ***Oct 2023***