Shashank Uppalamurthy

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SUMMARY

Associate Engineer with a strong academic background in Computer Science and practical experience across software development, data engineering, and UI/UX design. Proficient in building scalable, data-driven solutions using Python, SQL, and modern web technologies, while also skilled in creating user-friendly digital experiences through design and website management tools. Recently advanced expertise in CRM platforms and digital marketing technologies, enabling the integration of technical solutions with business growth strategies. Known for adaptability, analytical problem-solving, and the ability to align technology with organizational objectives to deliver measurable results.

EDUCATION

Master of Science in **Computer Science**, Kent State University **Aug 2023 – Dec 2024**

Bachelor of Engineering in **Computer Science Engineering**, Anna University **Aug 2019 – May 2023**

TECHNICAL SKILLS

Programming Languages: SQL, Python, Shell Scripting, HTML, CSS, JavaScript

Packages: PyTorch, Pandas, Scikit-learn, NLTK, Flask TensorFlow, Matplotlib, Seaborn, NumPy, Google Colab, Jupyter

Database Technologies: MySQL, PostgreSQL, Oracle, SQL Server, Aurora, Snowflake

Design & Web Tools: UI/UX Design, Figma, Canva, Wix, Webflow, Git, JIRA, Tableau, Power BI

Cloud Services: S3, Redshift, Glue, CloudWatch, Sage maker, Machine Learning, EMR, IAM, VPC, AutoML, Kubeflow

Networking: TCP/IP, DNS, HTTP/s, Firewalls, LAN/WAN, Traceroute, CURL Tools, VMware

Marketing Technologies: HubSpot, CRM, LinkedIn Ads, Email Automation, Campaign Analytics

Operating Systems: Windows, Linux, OS
AI Technologies: Random Forest, Streamlit Application, SVM, LLM, NLP

CERTIFICATION AND COURSEWORK

Professional Machine Learning Engineer | Google Cloud

Google Cloud Data Analytics | Google Cloud

Introduction to Artificial Intelligence and Machine Learning | Coursera.com

HubSpot Certified in Sales Admin, Email Marketing, Inbound Sales & Reporting | HubSpot Academy

LinkedIn Marketing Strategy | LinkedIn Marketing Labs

AWS Cloud Support Associate | Coursera.com

Architecting with Google Compute Engine | Coursera.com

WORK EXPERIENCE

Associate Engineer | Strategic Systems **March 2025 – Present**

Collect, clean, and process data for ML model training, including feature engineering and normalization using tools such as **Python** and **Snowflake**.
Collaborate with senior engineers and data scientists to develop machine learning models tailored to specific use cases, leveraging **Snowflake** for efficient data storage and retrieval.
Execute training experiments and evaluate model performance using key metrics such as accuracy, precision, and recall, primarily using **Python** libraries such as **scikit-learn**, **TensorFlow**, or **PyTorch**.
Assist in operationalizing models by containerizing them with **Docker**, integrating them with existing systems, and ensuring production scalability using **Streamlit** applications for model deployment and user interaction.
Monitor deployed models for performance degradation, tracking issues like data drift or concept drift, and retraining them periodically with fresh data, utilizing **Python** for automated retraining pipelines.
Gained proficiency and earned hands-on experience in **HubSpot** & **LinkedIn Marketing Strategy** with **Ads Campaigning** to support integrated business and marketing initiatives.
Contributed to **front-end and design tasks**, including **UI/UX design**, **HTML/CSS/JavaScript**, and **Website Management** using tools like **Figma**, **Canva**, **Wix**, and **Webflow**.
Documented the entire development process, including data sources, model architecture, and training steps, for team reference and compliance.

Machine Learning Engineer | Pandata Group **May 2024 – July 2024**

Developed and optimized real-time ML models using **Python, TensorFlow, PyTorch, and Scikit-learn** to solve complex business challenges with low-latency solutions
Implemented data preprocessing pipelines using **Pandas and NumPy,** reducing data cleaning time by 99%.
Troubleshooting memory and network issues in real-time **Spark streaming** jobs on **AWS EMR** clusters, ensuring efficient data processing and system stability
Designed and optimized supervised and unsupervised learning algorithms to solve specific problems.
Worked closely with cross-functional teams to design and implement AI-driven solutions, presenting insights through visualizations **(using Matplotlib and Seaborn)** to support data-driven decision-making.
Built and fine-tuned machine learning models for predictive analytics, including regression, classification, and time series forecasting using algorithms like **linear regression, random forests**, and ARIMA.

Associate Machine Learning Engineer | Stratsol Software Systems **Nov 2022 – June 2023**

Executed and optimized SQL queries within **Jupyter Notebook** to analyze data, generate insights, and streamline interactive workflows.
Interact with Engineers, marketing team to understand product goals and data needs
Implemented **ETL pipelines** to transform data and load it into **Redshift**, enabling efficient storage and organization of large-scale datasets
Based on business use-case writing **SQL scripts** on on-prem data, **encrypting** data and giving cross account permissions on **S3** bucket for business teams.
Creating partitions on tables that contain historical data and controlling users access using **Athena** workgroups
Turning and troubleshoot **Spark jobs** on AWS **EMR** clusters, optimizing performance and ensuring efficient processing of large-scale datasets
Contributed to natural language processing **(NLP)** tasks, including sentiment analysis and text classification, using tools like IDF and word embeddings to analyze financial documents

PROJECTS

Show UP - Student Attendance Dashboard

For our capstone project, we developed a voice-based attendance system that accurately tracks student presence in different seating arrangements within the classroom. This system automates attendance, providing a more secure, efficient, and scalable solution for modern classrooms.

Kidney Creatine Analysis using probabilistic data management

I developed a web application for Kidney Creatine Analysis that forecasts creatine level fluctuations based on patients' diets and helps determine kidney donation eligibility. For accuracy, I implemented a Markov Model for transitions and used a Random Forest Model to validate the results.