Shikhar Gupta

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TECHNICAL SKILLS

Certification: AWS Solution Architect - Associate, AWS Cloud Practitioner
Languages & Libraries: Python, Golang, C++, ReactJS, NodeJS, PyTorch, Keras, TensorFlow, SciKit-Learn, NumPy, Pandas
ML Expertise: Computer Vision, Large Language Model, Transfer Learning
CI/CD Tools: Ansible, Chef, Docker, Git, Helm, Kubernetes, Ngnix, Jenkins, Kafka, Terraform
Databases: PostgreSQL, MongoDB, Neo4j, Redis, S3, DynamoDB, InfluxDB

EXPERIENCE

Arizona State University | 10 Months   **08/2023 – Present**
Research Aide | ReactJS, D3.js, Mapbox, Leaflet, Bootstrap, AWS   Tempe, AZ
- Leading the development of a dashboard featuring a GIS-based mapping and analytics tool, facilitating a 360-degree view of the community, empowering users to build resilience, and utilizing actionable insights.

Hewlett Packard Enterprise (Aruba Networks) | 3 Years   **01/2019 – 07/2022**
Software Engineer II | Python, Golang, Jenkins, PostgreSQL, Kubernetes, Microsoft Azure   Bangalore, India
- Led the development of a cross-platform testing solution utilizing Python for a network security compliance tool, to enhance end-to-end testing efficiency and slash resource requirements by 80%, expediting product deployment.
- Engineered an innovative Golang-based solution for deploying virtual machines across ESXi, Hyper-V, KVM, AWS, and Azure, resulting in a 60% efficiency boost and streamlined process.
- Crafted a comprehensive solution using Python to detect vulnerabilities across product code databases, ensuring robustness in software development practices resulting in a 15% reduction in potential security risks.
- Built a robust multi-threaded RESTApi Load Testing tool utilizing Jmeter, which contributed to a notable 10% enhancement in product performance.
- Restructured the monitoring and logging infrastructure using Logstash, Kibana, Filebeat, Grafana, and InfluxDB, enhancing application performance visibility and reducing troubleshooting time by 50%.
- Developed a Python-based automated UI testing solution using OpenCV, resulting in a 50% reduction in QA personnel workload.

Stylumia Intelligence Technology | 3 Months   **06/2018 – 08/2018**
Summer Intern | TensorFlow, ElasticSearch, HTML5/CSS3, Javascript   Bangalore, India
- Crafted a machine learning model for product classification and seamlessly integrated it with a search bar, yielding a 10% enhancement in search efficiency.

EDUCATION

Master of Science in Computer Science, Artificial Intelligence   **08/2022 – 05/2024**
Arizona State University | Tempe, AZ, USA   GPA: 4.0/4.0
Courses - Image Analytics, Statistical Learning, Natural Language Processing, Data Mining

Bachelor of Technology in Computer Science   **08/2015 – 05/2019**
PES University | Bangalore, KA, India   GPA: 3.7/4.0
Courses - Big Data, Advanced Machine Learning

PROJECTS

PulmoAssist | *Keras, TensorFlow, Pandas, NumPy, SciKit-learn*
- Refined image classification, segmentation, and localization models for polyps, abnormalities in chest X-rays, and pulmonary embolisms using ResNet and Swin Transformers, improving the accuracy by 5% and reducing false positives.

Firearm Watch | *C++, Kafka, MongoDB, Docker, Terraform, EKS, Helm, Ansible*
- Integrated an object detection model using AWS Lambda and SageMaker, reducing pipeline inference time by 80%.
- Implemented an ETL pipeline to handle continuous frame streams and efficiently route model inferences to S3 for retrieval and analysis.

GenViz | *Python, ReactJS, D3.js, OpenAI, Vega-Lite*
- Created an automated platform utilizing Large Language Models (LLMs) to generate tailored high-quality visualizations based on user requirements and data characteristics; streamlined data visualization processes, resulting in a 30% reduction in time spent on report creation.