SHIKHAR GUPTA

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SUMMARY

As a Computer Science graduate student with 3+ years of experience, I specialize in full-stack development, CI/CD, cloud infrastructure, and automation, focusing on designing, implementing, and deploying scalable machine learning models.

EDUCATION

M.S. Computer Science 08/2022 - 05/2024
Arizona State University, Tempe, Arizona GPA: 4.00
Courses: *Machine Learning, Natural Language Processing, Data Visualization, Data Processing at Scale, Data Mining*

B.S. Computer Science 08/2015 - 05/2019
PES University, Bangalore, India GPA: 3.74
Courses: *Artificial Intelligence, Web Development, Android Development, Data Structures and Algorithms, Cloud Computing*

SKILLS

Languages: Python, C++, Java, Golang, Bash, Kotlin, HTML5/CSS3, D3.js, JavaScript, jQuery, SQL (Postgres)
Libraries: FastAPI, PyTorch, NumPy, Pandas, Matplotlib, Boto3
Frameworks: Bootstrap, Material-UI, Node.js, Leaflet, React.js, Next.js
Developer Tools/Platforms: Git, Docker, Kubernetes, Helm, Chef, AWS, Azure, OpenStack

PROFESSIONAL EXPERIENCE

Research Aide, School of Community Resources and Development, ASU, Tempe, US 08/2023 - Present
- Leading the development of a dashboard using React.js to provide a comprehensive view of climate and community, empowering users to build resilience and utilize actionable insights.
- Designing an interface featuring a GIS-based mapping and analytics tool using Leaflet with visualizations using D3.js.

Software Engineer II, Aruba Networks, Bangalore, IN 01/2019 - 07/2022
- Led the development of automated solutions resulting in an 80% reduction in person hours and accelerated product delivery.
- Restructured Linux-based monitoring and logging infrastructure using Logstash, Kibana, Filebeat, Grafana, and Influx DB, enhancing application performance visibility and reducing troubleshooting time by 50%.
- Engineered a Python-based tool for virtual machine deployment using Docker, Kubernetes, Terraform, Chef, and AWS services (EC2, S3, CloudWatch, VPC) resulting in a 60% efficient and streamlined virtual machine deployment.
- Built a multi-threaded C++-based RESTApi Load Testing tool, improving product performance by 10%.
- Developed a GUI-based testing tool with Python and OpenCV, reducing QA person-hours by 50%.

Summer Intern, Stylumia Intelligence Technology, Bangalore, IN 06/2018 - 08/2018
- Crafted a machine learning model for product classification and integrated it with a search bar, resulting in a 10% improvement in search efficiency.

PROJECTS

Guardian Angel | *Java, MongoDB, Kotlin, Rooms DB, Git* 08/2023 - 12/2023
- Designed a scalable Android app utilizing real-time data (vital signs, location, weather, and reproductive health) to deliver personalized well-being recommendations.
- Created a user-friendly interface with Material Design and Jetpack Compose, seamlessly integrating with a smartwatch via REST API.

Real-time Firearm Detection | *AWS, Mongo DB, Docker, Terraform, Helm, Kubernetes, Kafka* 05/2023 - 08/2023
- Led the development and integration of a real-time object detection model in C++ using ONNX runtime, seamlessly incorporating it into the pipeline. This initiative resulted in an 80% reduction in latency.
- Implemented a Kafka pipeline using AWS EKS to handle continuous frame streams and efficiently route model inferences to an S3 bucket and MongoDB database for real-time retrieval and analysis.

Generating Visualizations Using Large Language Models | *NLP, D3.js, JavaScript, HTML/CSS* 01/2023 - 05/2023
- Created an automated system utilizing GPT-3, D3.js, and Vega-Lite to generate high-quality visualizations based on user requirements.

Enhancing Disease Diagnosis using Transformers | *CNN, PyTorch, Pandas, NumPy* 01/2023 - 05/2023
- Refined image classification, segmentation, and localization models for polyps, abnormalities in chest X-rays, and pulmonary embolisms using ResNet and Swin Transformers.
- Significantly improved accuracy and reduced false positives by 5%.