SHIKHAR GUPTA

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SUMMARY

Computer Science graduate student with 3+ years of experience in software development, cloud computing, machine learning, leadership, mentorship, and administrative duties.

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

TECHNICAL SKILLS

Machine Learning/AI Expertise: NLP, CNN, RNN, Computer Vision, Transform Learning
Programming Languages/Libraries: Python, C++, Java, GoLang, Bash, Kotlin, FastAPI, PyTorch, NumPy, Pandas
Front-End: HTML5, CSS3, Bootstrap, D3.js, JavaScript, jQuery, Node.js, Leaflet, React.js, Next.js
Tools/Databases: MySQL, Postgres, MongoDB, RoomsDB, Docker, Kubernetes, Terraform, 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 leverage 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

Covid-19 Symptom Tracker   08/2023 - 12/2023
- Designed an Android-based health monitoring application using Kotlin, Java, and Rooms DB.
- Fabricated a user-friendly interface to measure heart rate using the smartphone's back camera and flash with 90% accuracy, and respiratory rate using the smartphone's accelerometer with 78% accuracy.

Real-time Firearm Detection Pipeline with Kubernetes and Kafka   05/2023 - 08/2023
- Spearheaded the development and integration of a real-time object detection model into the pipeline, reducing the latency by 80%.
- 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   01/2023 - 05/2023
- Created an automated system utilizing GPT-3, D3.js, and VegaLite to generate high-quality visualizations based on user requirements.

Enhancing Disease Diagnosis using Machine Learning   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%.