Shikhar Gupta

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TECHNICAL SKILLS

Certification AWS Solutions Architect, Cloud Practitioner, Azure Databricks

Languages & Libraries Python, Golang, Java, JavaScript, D3.js, NodeJS, ReactJS, Django, Flask, FastAPI, Bootstrap

Tools and Technologies Ansible, Chef, Docker, Git, Helm, Kubernetes, Jenkins, Jira, Kafka, Tableau, Terraform

Databases & OS PostgreSQL, MongoDB, Neo4j, Redis, InfluxDB, Linux, MacOS, Windows

Cloud Services AWS Fargate, ECS, Aurora, RDS, VPC, IAM, Cognito, SageMaker, Athena, Glue, CloudFormation

EXPERIENCE

Arizona State University | 10 Months

08/2023 - Present

Front End Engineer | Next.js, Typescript, Leaflet, TailwindCSS

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

Senior Software Engineer | Python, React.js, PostgreSQL, Jenkins, Grafana, Microsoft Azure

Bangalore, India

- Led the development of a **cross-platform** testing solution using Python for a network security compliance tool, improving end-to-end testing efficiency and reducing resource requirements by **80%**.
- 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.
- Contributed to the development of a **multi-threaded RESTApi Load Testing** tool utilizing **Jmeter**, leading to a **10**% improvement in product performance.
- Revamped monitoring and logging for a **microservice-based architecture** with Logstash, Kibana, Filebeat, Grafana, and InfluxDB, boosting performance visibility and cutting troubleshooting time by **50%**.
- Developed a Python-based automated UI testing solution using OpenCV, resulting in a 50% reduction in QA workload.

EDUCATION

Master of Science in Computer Science

08/2022 - 05/2024

Arizona State University | Tempe, AZ, USA

GPA: 4.0/4.0

Courses - Cloud Computing, Data Visualization, Data Processing at Scale, Data Mining

Bachelor of Technology in Computer Science

08/2015 - 05/2019

PES University | Bangalore, KA, India

GPA: 3.7/4.0

Courses - Web Development, Data Structures & Algorithms, Object-Oriented Programming

PROJECTS

CloudVision | Golang, EC2, DynamoDB, Lambda, S3

- Created a **multi-tier serverless infrastructure** with instant auto-scaling capabilities, seamlessly adapting to dynamic workloads and ensuring efficient processing of **1,000**+ requests per second.
- Leveraged AWS Lambda, SQS, and DynamoDB to achieve a processing speed of 50 frames per second and efficiently route the inferences to S3 for analysis.

Firearm Watch | Kafka, MongoDB, Docker, Terraform, EKS, Helm, Ansible

- Integrated an object detection model using AWS Lambda and SageMaker, reducing pipeline inference time by 80%.
- Built an ETL pipeline to handle frame streams and efficiently route model inferences to S3 for retrieval and analysis.

KeyVault | FastAPI, Kubernetes, Redis

• Designed a key-value store system, handling 1,000+ requests per minute, achieving **99.99% uptime**, and scaling to manage **1TB+ data volumes**, ensuring continuous reliability and availability.

EXTRACURRICULAR

- As a Teaching Aide, provided online tutoring for students enrolled in a Java course at Arizona State University.
- Received the Excellence Award at Aruba, showcasing expertise and exceptional contributions in the field.
- Secured the 2nd position out of 100 teams in an Auction contest at IISC's Tech-fest Pravega 2016
- As a member of the IET Student Chapter at PESU, organized trainings, workshops, and hackathons for fellow students.