SURAJ GUPTA GUDLA

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EDUCATION:

Indiana University, Bloomington, IN, USA ***Jan 2021 - May 2022***

Master of Science in Computer Science *GPA: 3.7/4*

Coursework: Applied Algorithms, Applied Distributed Systems, Elements of Artificial Intelligence, Applied Machine Learning, Software Engineering, use and Management of Big Data

Chaitanya Bharathi Institute of Technology, Hyderabad, India ***Sep 2014 - May 2018***

Bachelor of Engineering in Electronics and Communication *GPA: 9.3/10*

Coursework: Programming and problem Solving in C, OOPS through C++, Data Structures, Operating Systems, Computer Organization and Architecture, Computer Networks, Java Programming

PROFESSIONAL EXPERIENCE:

Indiana University, Bloomington, IN, USA

Associate Instructor, Intro to Programming ***Jan 2021 – May 2021***

- Assisted in framing questions for the Java programming assignments and wrote unit test cases to grade and evaluate them.
- Conducted labs and office hours to advise and assist undergraduate students with their coursework and homework.

Education Systems Consultant ***Mar 2021 – Jul 2021***

- Lead a team of high school students in *Problem Solving & Computing* as part of the pre-college summer program introducing them to various trending technologies in informatics, computing and engineering.

NCR Corporation, *Hyderabad, India – Software Engineer 1* ***Jul 2018 – Dec 2020***

- Worked with multiple teams and delivered several ATM Software Security enhancement features and applications such as Remote OS hardening, locked-down accounts, disk encryption and BIOS level security using C# .NET (core) and a variety of scripting technologies under anticipated target timelines.
- Reduced the man-hours by 70% for the testing team and improved the customer experience by automating the testing suites, configuration and deployment process using AutoIT V3 automation scripts.
- Performed code Migration from AutoIT scripts to C# .Net to improve code integrity and functionality.
- Administered the windows server & the SQL server management studio and Microsoft active directory (ADDS) for the projects undertaken.
- Debugged potential issues in production and development to mitigate the effect and addressed the issues with a turnaround time of 1-2 days. Reduced and resolved security risks, bugs, code smells & memory leaks by performing frequent code analysis with Coverity and SonarQube.
- Coordinated in different phases of the product delivery (Analysis, Development, Testing, Maintenance, Release activities & Documentation, Customer Support & Troubleshooting) under Agile software development lifecycle.

TECHNICAL SKILLS:

- **Programming & Scripting Languages**: C++, C# .Net(core), Java, Python, AutoIT, Batch, Power Shell
- **Web Technologies**: HTML, CSS, SQL, React JS, Node JS, Flask, Databases (MS SQL server, MySQL, MongoDB), JSON, XML
- **Machine Learning Libraries**: NumPy, Pandas, matplotlib, scikit-learn, TensorFlow, PyTorch
- **DevOps & Cloud technologies**: AWS(EC2, S3, RDS, DynamoDB, VPC, IAM), Docker, Kubernetes, Jenkins, Kafka, JMeter, VMware
- **Other**: GIT, JIRA, Confluence, Crucible, Zephyr, WiX, SonarQube, Coverity, Visual Studio

PROJECTS:

- **PixelGram [React JS, Node JS, Python, Docker, Jenkins, Kubernetes, Kafka, JMeter, SQLite DB, GIT]:** Designed and developed a fault-tolerant distributed systems based web application with high availability & scalability which can be used to share, upload, download and organize photos employing the Micro-Services Architectural pattern. Built a CI/CD pipeline using Jenkins to deploy the containerized microservices on a Kubernetes cluster running on a cloud VM instance setup on Jetstream. Leveraged GIT effectively for the source code and project management.
- **Movie Store [React, Mongo DB, Express, Node, AWS]:** Developed a MERN stack web application that displays the latest collection of movies and related information wherein the authenticated users can like a movie, mark their favourites and post reviews. Deployed on an AWS EC2 instance with NGINX as the frontend web server and node as the backend server along with Amazon S3 to store the movie cover images and Amazon DynamoDB to store the movie data.
- **Home Automation System [UG project]:** Designed and developed an IoT system to control all the home Appliances remotely. Used Mosquito MQTT as the messaging broker between the NodeMCU and the cloud. Developed an interactive control dashboard UI using WebSocket, Eclipse Paho JS library, CSS and jQuery and deployed using google firebase. [Project report]
- **Route Finder**: A python application designed from scratch using the A* Search algorithm that gives the optimal route between two cities considering various constraints like fastest, shortest, safest, etc. Haversine distance has been used as the heuristic function to improve accuracy.
- **Toxic Speech Classifier [NLTK, HTML, CCS, Flask, Matplotlib, AWS EC2]**: Developed a Machine learning based web application that can classify user provided speech into various toxic categories like Normal, Toxic, Obscene, Threat, Insult, Hate using the Natural language Toolkit(NLTK) library in python, HTML & CSS for the front end and Python Flask for the backend server running the ML classifier. Deployed the Web App on an AWS EC2 instance.

CERTIFICATIONS:

AWS Certified Cloud Practitioner || Algorithmic Toolbox || Data Structures|| Machine Learning with Python, IBM Front-End Web Development with React || Server-side Development with NodeJS, Express and MongoDB