SPANDANA VALLABHANENI

spandana.v8@gmail.com | (959) - 929- 9003
200 West Road, Apt. 56, Ellington, CT - 06029

A Software Engineer with more than 4 years of experience with developing server-side applications. Excellent track record on demonstrating RESTful API development using Python, Node JS and other parallel-processing techniques. Aspiring to develop hands-on technical skills required for data science and create meaningful solutions that translate technology for customer's everyday use.

Accomplishments: Scaled enterprise API's to handle 50 billion+ consumer generated API calls per year. Modernized existing API's by refactoring the code as per the newer trends in the marketplace by optimizing ORM's, assessing bottleneck issues of the live API's and reducing computation time by implementing parallel-processing and appropriate algorithms. Even with multiple inter-linked API calls, perfected the root cause analysis. Effectively performed requirement analysis and presented options to stakeholders.

TECHNICAL SKILLS:

Programming Languages	: Python, GoLang, Node JS, GoLang C++, C, JAVA, C#
Database	**:** MYSQL, Oracle, SQL, MongoDB
Operating Systems	**:** WINDOWS, LINUX, MacOS
Application Software	**:** Eclipse IDE, NetBeans IDE, PyCharm CE, IntelliJ IDEA
Infra	: AWS, Apache, JBOSS, RedHat Openshift
Tools	: CA Agile Central, GIT, PyUnit, Atlassian Tools
Web Development	: HTML5, CSS, JavaScript, Django, Koa, Express
CI/CD	: Jenkins, Nexus, Bash Scripting, UDeploy
AWS	: Secrets Manager, ElastiCache, Document DB, Lambda, API Gateway

WORK EXPERIENCE:

- **Software Engineer**
  Cigna Health Life & Co.   **August 2018 - Current**
  - Majorly involved in the migration of legacy platforms built in Python to a microservice-based platform in GoLang and Node JS.
  - Built Lambda API's in Node JS on Koa framework as well as in GoLang and hosted them in AWS environment.
  - For the migration of Database from Oracle, leveraged the Amazon Web Services such as ElastiCache and DocumentDB.
  - Maintained the legacy-based services built in Python that are consumed by the web and mobile developers.
  - Hosted applications online in the deployment environment and assured the performance of the services post deployment.
  - During a heavy influx of volume on the legacy systems, worked towards multiplying the production servers to scale the volume capacity.
  - Took on additional responsibilities and led a team of 5 developers spread across US and India to handle both the legacy and the migrated platforms.
  - Implemented health checks of the application servers by utilizing monitoring tools such as Splunk and Dynatrace.
  - Maintained and orchestrated multiple development environments as necessary for the regression and development testing.
  - Designed and maintained a database to manage data analysis efforts in mobile. The API built as a predictive analytical model that consumes an image database, derives the necessary metrics from an image input.

- **Senior Specialist - Application Developer**
  Client: Cigna Health Life & Co.
  Strategic Staffing Solutions, L.C   **July 2017 – August 2018**
  - Majorly involved in defining, refactoring and building integration-centric solutions in the context of transition from legacy platforms to service-oriented architectures using Python to build the RESTful API's.
  - Developed Python based web services using the DJANGO framework to provide multiple RESTful API's that serve the device needs.
  - Hosted applications online in the deployment environment and assured the performance of the services post deployment.
  - Developed multiple Node JS based micro services and identified various techniques to make the application more robust while avoiding a single point of failure.

- Cross collaborated with front-end device developers and back-end teams in an agile environment to develop multiple API's.
- Ensured performance of the services against all edge cases using unit testing as part of test-driven development.
- Worked with non-technical peers to help them execute testing and analysis functions. Also, worked with business owners to understand the customer needs and mold the application accordingly.
- Conducted various feasibility analysis for increased speed and memory efficiency via implementation of multi-processing and machine learning in the healthcare ecosystem.
- Made the application resilient and increased the uptime by confirming to the Service Level Agreements through best-practices.
- Active control of scrum calls as required to support collaboration.
- Experienced with complete software development life-cycle, architecting scalable platforms, performed various assessments pre-deployment and post-deployment.
- Designed process flow diagrams to aid with the understanding of the application among all platforms.
- Actively took care of production issues both immediate and the ones that needed analysis for a later fix.

RESEARCH EXPERIENCE:

- **Research Assistant**   **January 2016 – May 2017**
                                                                                         University of Connecticut
  - Worked as a Research Assistant in Cyber and Systems Optimization laboratory at University of Connecticut. Involved in implementing algorithms for UAV routing with multiple constraints and parallelizing them in Python. Simultaneously involved in building algorithms for Water Collision Detection System and parallelizing them using High Performance Computers which cut down the execution time approximately by a factor of 20.
  - Research paper titled **"The Intelligent Overtaking Model for Reducing Road Accidents Based on Animal Group Behavior"** has been accepted in IEEE International Conference; ICVES-2014 held on 16th-18th December, 2014 and published.
  - Research paper titled **"Sequential and Parallel Algorithms for Proactive Scheduling of Unmanned Aerial Vehicles under Dynamic Mission Environment"** submitted to Naval Research Logistics Journal.
  - Worked in the server support group of University Information Technology Services (UITS) at University of Connecticut.

FIELD EXPERIENCE:

- **Scitus Labs and Technologies Pvt. Ltd., Visakhapatnam**   **June 2014**
  Developed a Mobile Application, "**Student Track App**", on Android platform for students using JAVA.
  Established back end connections using JAVA and MySQL.

RELEVANT ACADEMICS PROJECTS:

Scalability of Spectral Clustering   **January 2016 – April 2016**
- Apply spectral clustering on a dataset and check the scalability of spectral clustering by increasing the size of datasets.

Graph Analysis on GitHub Repository Data   **August 2015- December 2015**
                                                                                         Aug 2015- Dec 2015 Aug 2015- Dec 2015
- Performed graph analysis such as clustering, co-relation and distribution fitting on the social network of GitHub. Mined many relationships in order to learn about the co-relation among the software projects and their developers.
- Created massive graphs using the IGraph package of python and stored them as datasets using MongoDB to store the datasets.

Online Shopping System   **August 2014 – November 2014**
- Implemented Front-end for web applications using HTML5, JavaScript, JQuery, CSS3 Checked validity of a user and allow them to shop for items.
- Loaded data from flat files obtained from shopping catalogs using SQL*Loader, implemented SQL scripts for data manipulation and validation, used SQL Functions and master tables for automatic creation of primary keys.

EDUCATION QUALIFICATION:

University of Connecticut, Storrs, CT
Master of Science, Computer Science and Engineering (2017)
Relevant courses: C++ Programming, Statistical Methods and Data Analysis, Cloud Computing (AWS), Big Data Analytics, Advanced Sequential and Parallel Algorithms, Data Mining in Open Source Software, Advanced Computer Networks, Computational Foundations of System Biology.

GITAM University, Visakhapatnam, Andhra Pradesh, India
Bachelor of Technology, Computer Science and Engineering (2015)