Shruti Singh

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SUMMARY

Shruti is doing Master's in Computer Science from University of Southern California, Los Angeles. She is a dependable software engineer with **5+** years of professional experience. Her passion is centered in harnessing the power of distributed programming and utilizing the same to solve complex problems.

TECHNICAL SKILLS

Data Pipeline / ETL Tools: AWS computing services, Jupyter, NumPy, Pytorch, Unity, Docker Containers (AWS and GCP)
Backend Technologies: MySQL, Oracle 11g, MongoDB, REST API (Web Services)
Programming Languages: Python, C# .NET, jQuery, JavaScript, CSS, HTML5, AJAX, PHP
Technologies/Frameworks: AngularJS and Angular 2+, Android App, Responsive Website Design, Bootstrap 4.0+, Node.js, Express.js

EDUCATION

Masters in Computer Science, University of Southern California B.Tech. Computer Science, Uttar Pradesh Technical University, India

WORK EXPERIENCE

Student Data Engineer, Keck School of Medicine, USC | Los Angeles, California

- Statistical modeling and regression analysis in combination with data mining using the Apache, Scala, and Hadoop.
- Building high-performance algorithms, predictive models, and prototypes

Research Assistant, Marshall School of Business, USC | Los Angeles, California

- Building extensive ML / analytical services through various approaches with F2E, Data Scientists, Data Infrastructure team
- Developed and deployed an optimized deep learning convolutional neural network (CNN) algorithm, to enable text and object detections in the Image. Trained a model on over 80,000 images to provide an accuracy of 92%.
- Designed and updated up to 3 websites using HTML, CSS, AngularJS, and JavaScript keeping data integration through FileZilla FTP. Integrated AI bot for detecting images and objects with 80% accuracy for uploaded contents on site

Graduate Teaching Assistant, Viterbi School of Engineering, USC | Los Angeles, California

- Creates lesson plans working in close collaboration with specialist teachers.
- Motivates students to actively participate in all aspect of the educational process, including but not limited to, discussions, demonstrations, outside assignments, research, enrichment activities, etc.

Software Engineer, Giesecke & Devrient | Gurgaon, Haryana

- Solved critical issues in uncontrolled, non-reproducible, unbalanced data environments enabling software releases on time
- Built analytics dashboards using JSON and TCP/IP to remotely monitor the statistics of live banknotes processing on different machines maintaining 100% data synchronization with latency as low as 1%
- Automated real-time simulations of banknotes processing using TTCN framework combined with backend System Adapters, Encoders, and Decoders in python with Hardware-in-the-Loop and covered 1000+ scenarios in less than 5 months
- Practiced Agile methodology and Scrum to meet milestones and releases, and mapped requirements to User Stories, and automated the builds and releases with Team Foundation Server(TFS) reducing 30% of man-hours

PROJECTS

- Automated Car Al Agent: Built an Al agent in Python combined with Utility-Based reinforcement learning deciding its next move based on fixed rewards and penalties to arrive at its destination. Verified the correctness of calculated policy by sampling it over more than 100000 data distribution. Also, tested it against faulty mechanism by calculating probabilities
- **Open Source availability for US Airforce:** Delivered a solution prototype for US Airforce enabling to cut-short the software approval process time and money by 90%. Involved 100+ interviews with different military men to pivot in different directions and arrive at the outcome.

July 2008 - June 2012

September 2019 - Present

April 2019 - Present

August 2018 - May 2020

Jan 2019 – August2019

March 2013 - July 2018