Shreenath **Iyer**

AMAZON ALEXA PRIZE 2018 WINNER | FORMER PRODUCT DEV ENGINEER AT FIS GLOBAL | FORMER TME INTERN AT NOKIA NUAGE NETWORKS

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Summary

Master's Student in Computer Science with *2.8 years* of professional work experience in Software Development, Continuous Integration, DevOps and Computer Networks; an <u>Amazon Alexa Prize 2018 winner</u>; and *1.5 years* of TA experience. Proficient in Python, C++ and Linux.

Education

University of California, Davis | MASTER'S IN COMPUTER SCIENCE *Davis, California*
Sep 2017- Ongoing
- First Year GPA- 3.95

University of Pune, India | BACHELOR'S IN COMPUTER SCIENCE *Pune, India*
Aug 2011 – Jun 2015
- Graduated with a First Class with Distinction | GPA- 3.7

Experience

Nokia Nuage Networks | TECHNICAL MARKETING ENGINEER INTERN *Mountain View, California*
PYTHON, GITLAB, OPENSTACK, LINUX, CLOUD COMPUTING, SHELL SCRIPTING, DOCKER, ANSIBLE, CONTINUOUS INTEGRATION, DEVOPS *Jun 2018- Aug 2018*
- Implemented the automated creation and deployment of virtual machines enabled with OpenStack Queens on NuageX for SmartNIC testing.
- Updated existing Ansible roles and playbooks for Grafana, Zabbix, Ceph, InfluxDb and introduced new ones for ElasticSearch on NuageX Partner Program.
- Automated conversion of markdown documents to their PDF format in CI adhering to Nuage guidelines for Partner Program clients using GitLab.

Amazon Alexa Prize 2018 | SOFTWARE DEVELOPER *Davis, California*
PYTHON, NATURAL LANGUAGE PROCESSING, MACHINE LEARNING, AWS, LINUX, DOCKER, CONTINUOUS INTEGRATION *Feb 2018- Nov 2018*
- Winners of the Amazon Alexa Prize 2018 competition for which our team received a cash prize of $500,000 and a research grant of $250,000.
- Implemented the weather bot, sci-technology bot, fashion bot and automated local testing in Python3 using NLP, Docker, Redis, DynamoDB and AWS.
- Fetched weather data from yahooweather API, and science and technology topics from Reddit using praw, and coupled that with NLP for dialog flow.

Fidelity National Information Services (FIS Global) | PRODUCT DEVELOPMENT ENGINEER *Pune, India*
PYTHON, DJANGO, BUILDBOTS, ACCUREV, ARTIFACTORY, POSTGRESQL, MSSQL, WEB DEVELOPMENT, CONTINUOUS INTEGRATION, DEVOPS *Jun 2015- Jul 2017*
- Development of Magellan- an internal web-based platform developed in Python and Django for functional analysts to view automated test results.
- Migration of MSSQL database in Stockholm and Pune to PostgreSQL for faster data retrieval and query optimization of Magellan by ~3 sec.
- Created test automation frameworks for SwiftReader and SwiftWriter teams and introduced them to CI and Magellan using Python, Django and Buildbots.

University of California, Davis | TEACHING ASSISTANT *Davis, California*
PUBLIC SPEAKING, COMMUNICATION, COMPUTER ARCHITECTURE, MEDIA COMPUTATION, MACHINE LEARNING, JAVASCRIPT *Sep 2017 - Ongoing*

Projects

A Machine Learning Predictive Model to Predict Graduate Application Strength for the MSBA Department *UC Davis, California*
- Implement a classification model that predicts which candidates have stronger chances of enrollment using features from previous years' data.
- Developed the model in Python3 using Pandas, Numpy, and SciKit, to evaluate the strength of current applications with an accuracy of ~98%.

Implementation of a Public Blockchain on ExpoDB using Proof of Work Validation *UC Davis, California*
- Introduced a 'Proof of Work' benchmark on ExpoDB's distributed database for the creation of a public blockchain for transactions on ExpoDB.
- Implemented the algorithm in C++ on Linux across multiple nodes and validated the authenticity of transactions between the client and servers.

Implementation of RDMA on ExpoDB for Creating a Byzantine Fault Tolerant Model *UC Davis, California*
- An ongoing project which aims to utilize RDMA reads and writes instead of the TCP/IP stack to create a Byzantine Fault Tolerant model on ExpoDB.

BugMiner- Mining Bugs for Open Source Projects to Recreate them in BugSwarm *UC Davis, California*
- Found commit pairs from Git containing the bug and it's fix for open source Apache projects which used Jira as a tracking system as an input to BugSwarm.

Interactive Information Visualization for Assorted Datasets using D3 Graphs *UC Davis, California*
- Created interactive dashboards and implemented PivotPaths using D3 and jQuery in JavaScript for visualizing data and knowledge comprehension.

Keyword Aware Search in Front Arena Knowledge Base for Faster Document Retrieval *FIS Global, India*
- Executed retrieval of excerpts from documents and metadata spanning the Front Arena database using only the input keywords from the user.
- Developed the project using Django, HTML, and Python, along with ElasticSearch, Kibana and Logstash to perform searching on Front Arena documents.

Technical Skills

Python | C | C++ |Java | Alexa | JavaScript | jQuery | AJAX | ShellScripting | MySQL | PostgreSQL | MSSQL | SQLAlchemy | Dynamo DB | Redis | MongoDB | Django | HTML | CSS | Unix | Linux | Windows | RDMA | AWS | Git | Gitlab | Docker | OpenStack | Ansible | Grafana| Buildbots | Artifactory | Quickbuild | Apache | Distributed Systems | Continuous Integration | DevOps | Scrum | Kanban | Test Driven Development