# 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 Amazon Alexa Prize 2018 winner; and 1.5 years of TA experience. Proficient in Python, C++ and Linux.

### **Education**

University of California, Davis | MASTER'S IN COMPUTER SCIENCE

First Year GPA- 3.92

Davis, California

Sep 2017- Ongoing

University of Pune, India | BACHELOR'S IN COMPUTER SCIENCE

Graduated with a First Class with Distinction | GPA- 3.7

Pune, India

Aug 2011 – Jun 2015

Jun 2018- Aug 2018

### Experience

Nokia Nuage Networks | TECHNICAL MARKETING ENGINEER INTERN

Mountain View, California

PYTHON, GITLAB, OPENSTACK, LINUX, CLOUD COMPUTING, SHELL SCRIPTING, DOCKER, ANSIBLE, CONTINUOUS INTEGRATION, DEVOPS

- Implemented the automated creation and deployment of virtual machines enabled with OpenStack Queens on NuageX for SmartNIC testing.
- Automated conversion of markdown documents to their PDF format in CI adhering to Nuage guidelines for Partner Program clients using GitLab.

Updated existing Ansible roles and playbooks for Grafana, Zabbix, Ceph, InfluxDb and introduced new ones for ElasticSearch on NuageX Partner Program.

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

- 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

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

- 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 1

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