# **SANDEEP CHINDALUR BALAJI**

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#### **EDUCATION**

Arizona State University

Tempe, Arizona

Master's in Computer Science GPA: 3.67/4

Present

Coursework: Distributed Database Systems, Distributed Software Development, Algorithms, Distributed Operating Systems.

BMS College of Engineering

Bangalore, India

B.E in Electronics and Communications GPA: 8.05/10

May 2015

Coursework: Data Structures, Object-Oriented Programming, Computer Networks, Operating Systems, Signals & Systems.

#### **TECHNICAL SKILLS**

- Languages and Libraries: Python, Java, C, C++, Linux, Shell scripting, Data Structures, SQL, PL/SQL, PHP
- Web Technologies: Flask, Django, SpringBoot, Hibernate, AngularJS, Node.js, JavaScript, AJAX, jQuery, RESTful
- Databases: MongoDB, MySQL, PostgreSQL, Oracle, Redis, Amazon DynamoDB
- Tools/Framework: Nginx, Apache, GIT, Docker, Kubernetes, Google Cloud, AWS, Jenkins, JIRA, Elastic search, Ansible, unit-testing, CI/CD, Agile/Scrum

### **WORK EXPERIENCE**

#### **Software Engineer | Arizona State University**

May 2019 – Present | Tempe, Arizona

- Developed web application for hosting Mathematics quizzes which are used by 2500 students.
- Implemented a recovery strategy for failures in Math web application which decreased downtime by 80%.
- Troubleshooting applications for critical bugs and maintain backend architecture.
- Skills: Python, Shell scripting, Linux, Docker, Kubernetes, Ansible, PHP, SQL

# Software Engineer | gnani.ai (Startup)

Sep 2017 – Jul 2018 | Bangalore, India

- Designed applications for parallel execution of text cleaning on a corpus of over 1 Billion lines.
- Manage, improve and monitor cloud infrastructure and applications on AWS & GCloud.
- Designed architecture for the speech decoding application that serves over a million users per day.
- Developed REST APIs for speech decoding, diarization using Flask and released public API.
- Skills: Python, C++, Shell scripting, Linux, Flask, Docker, Kubernetes, Ansible, SQL

## **Software Engineer | Tata Consultancy Services**

Dec 2015 – Aug 2017 | Bangalore, India

- Implemented Goods & Services Tax in Oracle Financial application by developing Spring boot APIs.
- Developed stored procedures for defragmentation of all schemas in an Oracle database on 800 GB data.
- Redesigned the application for CI & finance data flow which reduced the load by 30%.
- Skills: Python, Java, SpringBoot, Hibernate, Oracle SQL, PL/SQL, Shell scripting

#### Academic Tutor | Arizona State University

Oct 2018 – Apr 2019 | Tempe, Arizona

- Responsible for tutoring under-graduates on basic key concepts of computer science.
- Tutor for Data Structures, Algorithms, Principles of programming language courses.

#### **PROJECT WORK**

#### **Secure Banking Application**

Jan 2019 – May 2019 | Tempe, Arizona

 Built a full-stack bank application using Angular.js, SpringBoot, and Hibernate that focused on implementing various security features.

## **Attribute Mining & Search Relevance Prediction**

Jan 2019 – May 2019 | Tempe, Arizona

• Prediction of the relevancy score of a search query and product description using word2vec, fuzzy string extraction and attribution mining.

# **Traffic Rules Learning using Deep-Q networks**

Jan 2019 – May 2019 | Tempe, Arizona

• Training an autonomous vehicle for learning traffic rules using Q-learning and neural networks. Simulated on the SUMO traffic environment.

#### Sudoku Solver - Q learning

Oct 2017 - Nov 2017 | Bangalore, India

- Basic Sudoku solver using Reinforcement learning written in python. Built as a personal project using Keras, pandas and numpy packages.
- Solves a medium level Sudoku within a running time of 30 seconds and a low level in less than a second.

#### **AWARDS**

### Sunhacks '18 - Best IoT hack & 2nd place

Nov 2018 | Tempe, Arizona

Computer Vision application for fall detection of elderly and emergency alert which saves \$50/month.

Inferno Hacks '18 - 2nd place

Nov 2018 | Tempe, Arizona

Google assistant application to train employees. Uses spaced repetition & vocalization to improve recall by 92%.

Hack Arizona '19 - 2nd place in 'Al in Recruitment' category

Jan 2019 | Tucson, Arizona

A platform for recruiters and applicants that predicts the probability of getting hired/becoming a top performer.