

Gautam Somappa

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Objective

To obtain a software developer role with Rackspace where I can apply my education and skill as a programmer to develop applications and improve operations.

Education

University of Virginia, Charlottesville

May 2018

Master of Science, Computer Science (GPA:3.72/4.00)

- Masters Teaching Assistant for CS4750 Database Systems. I take classes in the absence of the professor, hold office hours to clear concepts and also act as a liaison between the professor and the students. I am also tasked with grading papers and assignments.
- StatLab Fellowship with UVA Library's Research Data Services. I work with local agencies to understand their data and improve processes. I also work with news media data to help citizens better navigates a complex information environment.

Relevant Coursework: Machine Learning, Algorithms, Computational Visual Recognition, Deep Learning, CPS and cloud computing, Data Mining

Amrita University, India

May 2015

Bachelor of Technology, Computer Science (GPA:7.84/10)

Work Experience

Rackspace Inc., Blacksburg

May 2017 – August 2017

Graduate Intern

- Developed a tool to flush DNS on the DNS cache servers hosted by Rackspace. Built a two-layer API that spawns workers to flush DNS cache servers. Developed playbooks in Ansible to automate deployment of API on the servers.
- Added features to an internal tool that searches logs and returns meta-data about emails. The tool was built in AngularJS and used Solr to retrieve data. Features built were deployed and greatly helped lead techs with mail delivery, spams and authentication.

Tools used: Ansible, Python, Redis, AngularJS, Solr, Celery, Uwsgi, Docker, Vagrant

Fractal Analytics Private Limited, Bangalore

August 2015- June 2016

Consultant

- Developed a module using Java and MongoDB to harmonize the quality and utility of data. Module was implemented on a tool which streamlined the process of structuring data.
- Generated interactive reports using R and Spotfire for CPG clients that support their business case and helped deliver business insights. This increased business sale by 12% and improved automation of report generation.

Tools used: R, Python, Java, MongoDB, Spotfire, Tableau

Academic Projects

MLaaS (Machine Learning as a Service)

January 2017 – May 2017

Cloud Computing (University of Virginia)

- Developed an open source cloud framework for exposing machine learning models to train and predict data on the cloud.
- Built the framework from scratch and developed modules to wrangle, split and process data in the cloud. Built a prototype that trained models in the cloud that users could reuse for different datasets.

Implemented using: Python, Keras, Pandas, Numpy, Celery, Docker

Movie-Scope: Neural Network for Trailer Classification

August 2016–December 2016

Computational Visual Recognition (University of Virginia)

- Implemented a Deep Learning model that classifies movie trailers based on genre taking only the visual features.
- Designed a Convolutional Neural Network (CNN) that trained nearly 25 visual features in trailers and classified them based on genres. Improved on the previous accuracy, which was 80.2% using a 2-Layer Neural Network.

Implemented using: Python, Keras, Amazon Web Service (AWS)

Alexa-Vision: Smart Home Surveillance

August 2016–December 2016

CPS and Computer Vision (University of Virginia)

- Developed a skill on Amazon Echo to monitor home using smart cameras.
- Interfaced Raspberry Pi with Amazon Web Service which triggered programs using Alexa Voice Service (AVS). Implemented a working prototype that used facial recognition algorithms to detect faces and alerted users.

Implemented using: Python, Alexa Skills Kit, OpenCV, Raspberry Pi, Node.JS

Selected Certifications

- **R Programming, Exploratory Data Analysis, Getting and Cleaning Data and Practical Machine Learning** by Johns Hopkins University on Coursera. Certificate earned in 2015.
- **Using Python to Access Web Data and Using Database with Python** by University of Michigan on Coursera. Certificate earned in 2016.

Publications

- Gautam S, K. S. Sivaraman, Hariharan Muralidharan and A Baskar. Vision System with Audio Feedback to Assist Visually Impaired to Grasp Objects. ELSEVIER: Procedia Computer Science Journal (ISSN: 1877-0509). June 2015.
- K. S. Sivaraman, S. Gautam, S. Sarvesh, Archit Khullar, A. Baskar and Shriram K. Vasudevan. Object Recognition by Feature Weighted Matrix - A Novel Approach. Indian Journal of Science and Technology, Vol 8(S7), 278-291, April 2015.