

# Gautam Somappa

454, Farrish Cir, Charlottesville, VA

gs9ed@virginia.edu | +1(434)604-5105 | [www.cs.virginia.edu/~gs9ed/](http://www.cs.virginia.edu/~gs9ed/)

## Objective

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

## Education

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### University of Virginia, Charlottesville

December 2017

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

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

### Amrita University, India

May 2015

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

## Skills

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- Programming Languages: Python, C++, JavaScript, C#, Java
- Frameworks: AngularJS, JQuery, Node.js, Express.js, Socket.io, Flask.
- Markup Languages: HTML, TeX, CSS.
- Software Packages: OpenCV, Scikit-learn, Keras, Tensorflow, Pandas, Numpy.
- Softwares: Ansible, Spotfire.

## Work Experience

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### 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

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### 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

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- 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.

## Achievements and Other Projects

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- Statlab Fellow with UVA Data Services.
- Graduate Teaching Assistant for CS4750: Database Systems.
- Sorting Stories: Sorting sequence of images using deep learning.