# AMAL KRISHNA R

## EDUCATION

# M.S. in Computer Science:

Expected Dec 2018

 $Concentration:\ Data\ Analytics$ 

CGPA: 3.50/4.0 Boston University

#### B.Tech in Avionics Engineering:

2012 - 2016

Indian Institute of Space Science and Technology (IIST)

## Relevant Experience

#### Quality Assurance Intern, Boston University

Sep 2017 - Dec 2018

- Intern on Quality Assurance process for HR & Payroll functions & Programming team at BU IT & Services.
- Performed SAP HCM Automation & HPE LoadRunner for performance testing.
- Developed unit, integration test cases & development bug reporting for SAPUI5 web-app testing.

#### Data Analytics Intern, MetLife

Summer 2018

- Led reformatting of Net Promoter Score analytics to create an ongoing data set merging 1000+ files, leveraging Alteryx.
- Devised ordinal logistic, multi-nominal models to provide descriptive & relative significance of factors that impact NPS.
- $\bullet$  Developed random forest models for NPS predictive analytics.
- Executed key-phrase extraction & sentiment analysis using Azure text analytics to identify key claims factors.

#### Software Engineering Intern, Ather Energy

Mar - July 2017

- Implemented automation functionalities for program management team using JIRA API and python.
- Designed a data visualization portal for 300+ employees with SailsJS from the JIRA issue tracking data.
- Collaborated with data intelligence team and manipulated data leveraging REST API, ElasticSearch, Kibana & Grafana.

### Data Analytics Research Intern, Tech Mahindra

Aug - Dec 2016

- Built and evaluated data analytics projects with python for UpX Academy, e-learning venture under TechMahindra.
- Published white papers & e-books on data science research.

# Summer Intern, Indian Institute of Space Science and Technology

Summer 2015

Mentored by B.S. Manoj, Professor & Head, Dept. of Avionics, IIST

Project: Software Defined Delay Tolerant Network

- Analyzed challenges of SDN in a high delay environment.
- Implemented a python-C based SD-DTN module that was deployed onto every switch leveraging OpenFlow protocol.
- Module act's as a light-weight controller generating flows for switches & computing plausible locations to store packets in an isolated network.

# TECHNICAL SKILLS

Strongest Areas - Data Science and Visualization, Software Engineering (Automation)

Languages - Python, R, JavaScript, Java, C++

# ${\bf Tools/Frameworks} - \\$

Recent-experience - TensorFlow, PyTorch, Keras, Alteryx, Tableau, Shiny, Django, Apache Spark, SAP HCM, MAVEN, Selenium, Weka, REST API, Git, Semantic-UI, Bootstrap, LATEX, MySQL, DB2

Prior-experience - NodeJS, SailsJS, MochaJS, Grafana, ElasticSearch, Kibana, Logstash, POSTMAN, JIRA, OpenGL, RYU, Open vSwitch, OLSR daemon

#### Coursework

BU - Machine Learning, Operating Systems, Artificial Intelligence, Data Analysis & Visualization, Data Mining, Software Engineering, Cloud Computing, Computer Language Theory, Foundation of Analytics, Web Analytics & Mining,

IIST - Computer Networks, Wireless Mesh Networks, Data Structures & Algorithms, Virtual Reality, Information Theory.

MBTA Data Visualization & real-time app: Advanced data visualization methods with R & plotly was deployed on one week of MBTA data. Box plots, density plots, heat maps etc were plotted for travel, headway & dwell times to improve MBTA operations. Real-time MBTA app was devised with R, shiny & leaflet. App shows real-time position of trains in every subway line with real-time intensity of train bunching.

Job skill statistics in Django framework: Python, Django MVT framework & plotly was used to scrape large amount of Indeed data and make a data-driven website. Performed team leader role for Integration and Quality Assurance. I also worked on plotly data visualizations and website UI utilizing Bootstrap.

Boston Property Assessment: Boston property assessment dataset from Boston.gov classifies properties in greater boston area into it's present overall condition (Poor to Excellent). 4 classification algorithms (Naive Bayes, Random Forest, IBk and Decision Table) were modeled utilizing 5 different selection attributes in Weka. Performance measures such as TP Rates, ROC Area etc were used to determine overall performance of each classifier model.

Maze Runner 2.0: Navigation in a Virtual Environment utilizing IMU MPU-6050. Developed a hardware implementation to navigate in a virtual environment constructed in OpenGL by leveraging a low-cost Inertial Measurement Unit(IMU) MPU 6050.

**Software Defined MICRONet**: A scaled down model of Software Defined MICRONet(Mobile Infrastructure for Costal Region Offshore Communications & Networks) environment was emulated. The architecture provides intelligent communication among physical boat clusters in sea and will solve technology challenges faced by fishermen community.

## Leadership & Activities

ACM & IEEE Student Member	2015 - 2018
Computer Science Tutor — Chegg.com	2016 - 2017
Taught & Mentored 150+ high school & university students in CS & Python/C++/Java/JS Programming.	
Creativity Leader	2015
Led Conscientia 2015, Annual Astronomical & Technical Fest, IIST	
Finance & Creativity Leader	2014
Led Dhanak 2014, Annual Cultural Fest, IIST	