Amal Krishna R

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Education

M.S. in Computer Science: 2017 - 2019 (expected)
Concentration: Data Analytics
CGPA: 3.75/4
Boston University

B.Tech in Avionics Engineering: 2012 - 2016
Indian Institute of Space Science and Technology (IIST)

Relevant Experience

Quality Assurance Intern, Boston University Sept, 2017 - present
- QA Intern on QA process for HR & Payroll functions & Programming team at the BU IT & Services (BUworks).
- SAP Automation & HPE LoadRunner for performance testing.
- Writes unit and integration test cases for SAPUI5 web-app testing.

Software Engineering Intern, Ather Energy Mar, 2017 - July, 2017
- Worked on JIRA API for Python to implement automation functionalities for the program team.
- Worked on SailsJS framework to build a data visualization portal from the JIRA issue tracking data.
- Worked for the data intelligence team with REST API, ElasticSearch, Kibana & Grafana.

Data Analytics Research Intern, Tech Mahindra Aug, 2016 - Dec, 2016
- Worked on developing and evaluating data analytics projects with python for the e-learning website UpX Academy.
- Published white papers & e-books on data analytics.

Summer Intern, Indian Institute of Space Science and Technology May, 2015 - July, 2015
Mentored by B.S. Manoj, Professor & Head, Dept. of Avionics, IIST
Project : **Software Defined Delay Tolerant Network**
- Analyzed the challenges of SDN in a high delay environment.
- A python-C based SDDTN module was deployed onto every switch using OpenFlow protocol which gets activated in the absence of central controller
- The module act as a light-weight controller which generates the flow for the switch & compute the plausible locations to store the packets in an isolated network.

Technical Skills

Strongest Areas - Data Analytics and Visualization, Software Engineering (Automation), Cognitive Networks

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

Tools/Frameworks - NodeJS, SailsJS, Shiny, Django, SAP, MochaJS, MAVEN, Selenium, Weka, Grafana, ElasticSearch, Kibana, Logstash, REST API, JIRA, Spark, Hadoop, Git, Semantic-UI, Bootstrap, POSTMAN, LaTeX, MySQL, OpenGL, RYU, Open vSwitch, OLSR daemon

Relevant Courses

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

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

Selected Academic Projects

Codes available on github : `https://github.com/amalrkrishna`

- **MBTA Data Visualization & real-time app** : Adavanced data visualization methods with R & plotly was used on one week of MBTA data. Box plots, density plots, heat maps etc were ploted for travel, headway & dwell times. Real-time MBTA app was developed with R, shiny & leaflet which shows the realtime positions of the trains in all the subway lines with the intensity of train clustering.

last updated on March 29, 2018

- **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. I was the team co-ordinator for Integration and Quality Assurance. I also worked on the plotly data visualizations and the website UI using 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 (Naives Bayes, Random Forest, IBk and Decision Table) were modeled using 5 different selection attributes using Weka. Performance measures such as TP Rate, FP Rates, ROC Area etc are used to determine the overall performance of each classifier model.
- **Maze Runner 2.0** : Navigation in a Virtual Environment using IMU MPU-6050. Developed a hardware implementation to navigate in a virtual environment developed in OpenGL using 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. Software Defined MICRONet architecture provides intelligent communication among physical boat clusters in the sea which will solve the technology challenges faced by the fishermen community.

Initiatives

ACM & IEEE Student Member 2015 - present
Computer Science Tutor — Chegg.com 2016 - 2017
Taught 150+ students & took 200+ lessons through the platform in CS & Python/C++/Java/JS Programming.
Creativity Leader 2015
Conscientia 2015, Annual Astronomical & Technical Fest, IIST
Finance & Creativity Leader 2014
Dhanak 2014, Annual Cultural Fest, IIST