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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, Sept, 2017 - present
BUworks
• Works as a QA Intern on QA process for HR & Payroll functions & Programming team at the BU Information Technology & Services (BUworks).
• Works with SAP Automation & HPE LoadRunner for performance Testing.

Software Engineering Intern, Mar, 2017 - July, 2017
Ather Energy
• Worked on JIRA API for Python to implement automation functionalities for Program team.
• Worked on JavaScript, NodeJS & SailsJS to harness intelligence from issue tracking data for program managers. Thereby improving the efficiency of teams.
• Worked for the Data Intelligence team with REST API, ElasticSearch, Kibana & Grafana.

Data Analytics Research Associate, Aug, 2016 - Dec, 2016
Tech Mahindra
• Worked on data analytics projects with anaconda distribution of python, big data, under Tech Mahindra Growth Factories using apache spark in a Virtual Computing Lab.
• Worked closely with UpX Academy (an e-learning startup ventured by Tech Mahindra).
• Published white paper & e-books on Big data analytics.

Summer Intern, May, 2015 - July, 2015
Indian Institute of Space Science and Technology
Mentored by B.S. Manoj, Dept. of Avionics, IIST
Project : **Software Defined Delay Tolerant Network**
• Analyzed the challenges of SDN in a high delay environment.
• An 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 the isolated network.

Technical Skills

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

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

Tools/Frameworks - Anaconda(Python), NodeJS, SailsJS, Shiny, SAP, HPE LoadRunner, MochaJS, Weka, Grafana, ElasticSearch, Kibana, Logstash, Rest API, JIRA, Spark, Hadoop, Git, HTML5, Semantic-UI, POSTMAN, LaTeX, MySQL, OpenGL, RYU, Open vSwitch, OLSR daemon, WordPress

IDE - Visual Studio Code, Jupyter, Spyder, Eclipse

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.

Initiatives

Computer Science Tutor — Chegg.com 2016 - present
95%+ Positive rating
Taught 150+ students & took 200+ lessons through the platform in Computer Science & Python/C++/Java/JS Programming.
ACM & IEEE Student Member 2015 - present
IEEE - ACM
Creativity Head 2015
Conscientia 2015, Annual Astronomical & Technical Fest, IIST
Finance & Creativity Head 2014
Dhanak 2014, Annual Cultural Fest, IIST
Publicity Co-Head 2013
Dhanak 2013, Annual Cultural Fest, IIST
Web & Creativity Co-Head 2013
Conscientia 2013, Annual Astronomical & Technical Fest, IIST

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.
- **On Switch-based Controller Hand-offs in Software Defined Wireless Mesh Networks**: We use Expected Transmission Time as the metric for controller hand-off in OpenFlow WMNs. The experimental results showed that ETT is a better metric compared to RTT & ETX in a dynamic network with variable load across the links with lower hand-off delay & packet dropouts.
- **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.
- **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.