

AMAL KRISHNA R

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EDUCATION

M.S. in Computer Science: 2017 - 2019 (expected)
Concentration: Data Analytics
 Boston University, Boston, United States

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

RELEVANT EXPERIENCE

Quality Assurance Intern, Sept, 2017 - present
BUworks

- Works as a part time QA Engineer on QA process for HR and Payroll functions and Programming team at the BU Information Technology & Services (BUworks).
- Works with SAP Automation and 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 and 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 and 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.
- Helped the company with Data Analytics of real-world data sets using scikit-learn, Hadoop and Apache Spark in a Virtual Computing Lab.
- Worked closely with UpX Academy (an e-learning startup ventured by Tech Mahindra).
- Published white paper and 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 and compute the plausible locations to store the packets in the isolated network.

TECHNICAL SKILLS

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

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

Tools/Frameworks - Anaconda(Python), NodeJS, SailsJS, SAP, HPE LoadRunner, MochaJS, Grafana, Elasticsearch, Kibana, Logstash, Rest API, JIRA, Git, HTML5, Semantic-UI, POSTMAN, L^AT_EX, MySQL, OpenGL, RYU, Open vSwitch, OLSR daemon, WordPress

IDE - Visual Studio Code, Jupyter, Spyder, Eclipse, Netbeans

RELEVANT COURSES

BU - Computer Language Theory, Foundation of Analytics, Web Analytics & Mining, Artificial Intelligence.

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

MOOCs (certified) - Algorithms: Design and Analysis, Part 1 (Stanford), Machine Learning (Stanford), Cryptography 1 (Stanford), Hadoop Platform and Application Framework (UC San Diego), Python for Data Science (Microsoft).

ACHIEVEMENTS

IIST Financial Scholarship 2012-16
 Full financial scholarship throughout Bachelor's degree

HackerRank - Percentile Score : 97.6
 Contest Score - 2096, Global Rank - 1629 (Best), India Rank - 278
 HackerEarth [1585 rating]

Top 2% in IIT-JEE 2012

Top 1% in AIEEE 2012

AIR 577 in ISAT 2012
 Out of 150,000 students

AIR 686 in KEAM 2012
 Out of 120,000 students

INITIATIVES

Computer Science Tutor — Chegg.com 2016 - present
 95%+ Positive rating
 Taught 150+ students and took 200+ lessons through the platform in Computer Science and Python/C++/Java/JS Programming.

ACM & IEEE Student Member 2015 - present
 IEEE - ACM

Creativity Head 2015
Conscientia 2015, Annual Astronomical & Technical Fest, IIST

Finance and Creativity Head 2014
Dhanak 2014, Annual Cultural Fest, IIST

Publicity Co-Head 2013
 Dhanak 2013, Annual Cultural Fest, IIST

Web and Creativity Co-Head 2013
 Conscientia 2013, Annual Astronomical & Technical Fest, IIST

SELECTED ACADEMIC PROJECTS

Codes available on github : <https://github.com/amalrkishna>

- **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 and ETX in a dynamic network with variable load across the links with lower hand-off delay and packet dropouts.
- **Software Defined MICRONet:** A scaled down model of Software Defined MICRONet(Mobile Infrastructure for Coastal Region Offshore Communications and 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.