Tulja Vamshi Kiran Buyakar

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SKILL SET

- **Languages**: Java, C++, Python, SQL
- **Technologies**: Android SDK/NDK, OpenStack, Docker, Apache Kafka, MySQL, Zabbix
- **Frameworks**: Iotivity, Scikit-Learn, NLTK, Numpy
- **Hardware Platforms**: Raspberry Pi, Tizen

PROFESSIONAL EXPERIENCE

- **Software Engineer 2** — Aug 2019 – Present
  Dell Secureworks — *Manager: Praveen Chitikesi*
    - Member of Counter Threat Appliance Inspector Team
    - Worked on containerization and AWS migration of squad applications
    - Lead the Datadog migration for squad's applications using Cloud Native Technology

- **Google Summer of Code 2019 Intern** — May 2019 - Aug 2019
  OWASP Foundation — *Mentor: Adrian Winckles, Anglia Ruskin University*
    - Implemented honeypots using ModSecurity and lures the Attacker to gather information about the Attacker.
    - Used Elastic Search Stack to processes the logs and filter out the attack information incoming to the system.
    - All the malicious information is sent to Malware Information Sharing Platform (MISP)

MAJOR PROJECTS

- **Virtual Firewall Implementation using Python** — Jan 2017 – Apr 2017
  Under Prof. Kotaro Kataoka
    - Implemented packet filtering logic firewall using the rules.
    - Benchmarked the firewall and created multiple instances of it handle the load efficiently.
    - Implemented a mechanism to detect the port scan attack.

- **WiFi Ad-hoc network (IBSS) for Tizen framework** — Aug. 2016 - Nov. 2016
  Under Prof. Antony Franklin
    - Developed an ad-hoc network for 3 or more Tizen nodes.
    - The resultant setup can be used in wireless senro networks, vehicular ad-hoc networks,and many more places.

- **Automating Publication Management System** — Jan 2017 – Apr 2017
  Under Prof. Manohar Kaul
    - Automated scripts to manage and update recent publication from each faculty's Google Scholar Profile.
    - **Web Crawling**: Scripts to periodically crawl Google Scholar profiles and update new publications by a faculty.

- **Implementation of SLA based Microservices** — Nov. 2017 - Present
  Under Prof. Bheemarjuna Reddy Tamma
    - Realized the concept of Network Slicing with Isolated Logical Networks on top of OpenStack virtualization platform.
    - Orchestrated (with the help of Open Baton) the VNFs for ensuring the SLAs of the User Traffic and Scalability of Network Slices in 5G Networks.

- **Dynamic Adaption of Cool-Down Period for AutoScaling of VNFs** — Nov. 2018
  Under Prof. Bheemarjuna Reddy Tamma
    - Reduced the number of Scale Ups by observing the variation in the load and adaptively changing the Cooldown period.

Publications

- **ACM MobiCom 2018**: "Scalable Network Slicing Architecture for 5G", **Accepted** as Poster in ACM MobiCom 2018.

- **IEEE NetSoft 2019**: "Prototyping and Load Balancing the Service Based Architecture of 5G Core using NFV", **Accepted** in IEEE Conference on Network Softwarization (NetSoft), 2019.

Certifications

- **Beginning Game Programming with C#**: Successfully completed the online course offering by University of Colorado System on Coursera. *GPA : 7.8.*
- **Programming Mobile Applications for Android Handheld Systems**: Successfully completed the online course offering by University of Maryland College Park on Coursera. *GPA : 6.9 .*
- **Computer Networks**: Successfully completed the online course offering by University of Washington on Coursera. *GPA : 7.15 .*

Education

- **Indian Institute of Technology Hyderabad** — Kandi, Telangana, India
  Master of Technology in Computer Science; GPA: 8.87/10 — *Aug. 2016 – June 2019*
  Advisor: Prof. Bheemarjuna Reddy Tamma

- **Sreenidhi Institute of Science and Technology** — Ghatkesar,Telangana, India
  Bachelor of Technology in Computer Science and Engineering; Percentage: 80% — *Aug. 2012 – June. 2016*

- **Nano Junior College** — Hyderabad,Telangana, India
  Intermediate; Percentage: 88.5% — *Aug. 2010 – May. 2012*

- **Sri Sai Grammar High School** — Hyderabad,Telangana, India
  School Secondary Certificate; Percentage: 87.5% — *May 2010*

Extra Co-curriculars

- Volunteered for National Communication Conference (NCC) held in Febraury 2018 at IIT Hyderabad. Implemented QR Code based validation mechanism for participants.

- Attended Information and Communications Technology for Development(ICT4D) Conference held in Held at Hyderabad,India in May 2017.

Hobby Projects

- **QoE Visualizer**: Made a Quality of Experience Visualizer Chrome Extension for visualizing the network data. Some of my projects are hosted at https://github.com/tulja

Interests and Hobbies

- Watching TED talks and Movies, Reading Books (Non-Fiction)

- Calligraphy, Listening to Podcasts, Online Courses

Languages

- Telugu, Hindi, English