Ganesh Chandrasekaran

Bracknell,
United Kingdom.

E-mail : ganeshcece@gmail.com.
Web: http://knowganesh.azurewebsites.net/
Phone   : +821097230059

Personal Profile

I'm currently working for Samsung Electronics-HQ, developer and training architect for E2E Network Slice Manager (NSM) that can provide seamless Slicing and Automation to entire Samsung Network platform (5G-RAN, 5G-Core, Edge, EMS and Transport Network) in an E2E fashion.

I completed my PhD from the 5G Innovation Centre, UK and Master's in Telecommunication from the University College London (UCL), UK. I have been awarded various research Scholarships from all around the world (worth more than 700K USD).

I am a passionate and curious software cloud research engineer, looking for an opportunity to use my potential effectively to add value for cutting-edge technology that inspires me. Interested to work in NFV/5G/Cloud/IoT/SDN related projects.

Education

2014-2017: PhD in Telecom network. 5G Innovation Centre (5GIC), Institute for Communication Systems (ICS), *University of Surrey* - United Kingdom.

2012-2013: Masters in Telecommunications, Grade: Distinction. *University College London (UCL),* London – United Kingdom.

2007-2011: Bachelors in Electronics and Communication, *Anna University of Technology – India,* CGPA: 9.3 /10 (Gold Medallist /University Rank Holder).

Employment History

February 2018 to present: Samsung Electronics, Network Business, R&D Division Headquarter, Position: Staff Engineer. Role: Network Cloud Division product Design and Development.

1, Samsung 5G E2E-O Network Slice Manager product:
- o Designing and Architecting E2E Orchestrator and Samsung Cloud Platform that can manage the life-cycle of Containers, Virtual Machines and 5G Slices in a seamless fashion.
- o Managing development and reviewing features in Cloud Microservice Orchestrator and Cloud Platform involving elements such as DBaaS, Monitoring, Messaging and Alarms.

Involved in: Architecture Design, Develop and Review quality of software development, Standards requirement analysis (3GPP, ETSI), Open source community interactions, Patent creation, Operator's RFI response and Mentoring Freshers & Interns.

Technologies used: Kubernetes, Helm, Docker, Java Spring Cloud, Microservices, CI/CD, Jenkins, Kubernetes Operator, SQL, NoSQL, HA, Scaling, AWS, Ansible and Security Management.

Platforms Used: Samsung 5G Core VNFs, Container Networking Functions (CNFs), OpenStack Private Cloud, E2E network service creation (NSD), Public Cloud - AWS.

2, Open Source: Open Network Automation Platform (ONAP) project:
- o Won best performer award from VP of Network Division for my 20K+ lines of code contribution.
- o A new project proposal was made to Open Source ONAP community for instant zero-touch auto-configuration of data centre leaf-spine fabric using Samsung SDN controller.
- o Research and analysis performed on various components of Open Source-ONAP, then span-up a design for Samsung's own customized version of ONAP.

Involved in: Open Source Contribution and Code Review (2018's top effective code lines contributor to ONAP from Samsung Electronics). Project proposal and Architectural updates made to ONAP and ONOS committee.

Platforms Used: ONAP, Samsung MANO, Samsung SDN, Samsung OpenStack, Java, Open-O, Directed graphs (Node-RED), Camunda BPMN Engine.

3, Samsung SDN product:
- o Researched on existing Samsung SDN to rethink the process of auto-configuring data centre legacy fabric to reduce time and feature development cycle using config-management tools.

Platforms Used: Configuration management tools (Ansible, Saltstack), Samsung SDN ONOS, Data centre leaf/spine legacy fabric (Arista, Juniper switches), Border gateway, VxLAN/VLAN/SRIOV, MPLS/ Segment Routing, YANG modelling.

August 2017 – December 2017: Riverbed Technology, United Kingdom. Position: Software Engineer
- Design and Develop a solution that can be deployed on the SDP platform in order to simplify the orchestration of network service delivery.
- Technologies used: Golang, Micro-service, Docker, Nomad, Consul, Go-Micro, YANG, Sysrepo, Vault, Nexus, Java, VyOS, Github, Trello and Travis CI

2016 – April 2017: ECIT – QUB, United Kingdom. *Softwarization of network for Stateful Data Plane- Huawei project.* Position: Research Fellow. Role: Research and Development
- Research and Design Stateful OpenFlow multi-table data plane architecture for deployment within a OVS, SDN environment.
- Investigate network functions for proposed architectural applications such as Stateful firewall, NAT applications and security attack defence. Analyse and configure the implementation of network solutions at the data plane (OVS/OpenFlow) using SDN controller (ODL/ONOS).

August 2011- August 2012: *iNautix Technologies, A Bank of New York Mellon Company. Position: Application Developer.*
- *Project:* American Depository Receipts Cancellation Project in BNY Mellon, A migration from Desktop application to Java based web application.
- *Technologies Used:* Java, JSP, Servlets, Oracle, UNIX, Spring and DOJO.

Direct project involvement and collaboration Experience during PhD:
- Caching in CAINE: Context-Aware Information-Centric Network Ecosystem.
  - o CAINE enables context-based location-independent operations to be intrinsically supported by the underlying SDN/ NFV enabled network principles.
- Involved in KCN project, KCN is a research project funded by the EPSRC as part of the TI3 (Towards Intelligent Information Infrastructures) programme. *Main partners include: University College London (UCL) Project length: 1 year.*
- D2D/M2M based relaying/caching via mobility managed predicted Opportunistic communication for IoT devices and users in partial not-spots. *Main partners include: Institute of Computer Networks, Tsinghua University. Project length: 1 year along with 2 months visit to Beijing, China for collaboration work.*

Co-founding and Business Experience:
2015 - 2017: *Co-founder, Chief Technology Officer (CTO) and Mentor for StartupSurrey, UK.*
- StartupSurrey is a non-profit organisation and has managed to acquire tight partnership with Microsoft Ventures, Rocketdesk, Surrey Student Enterprise and Entrepreneurs Society.
- Winded up with 300+ Registered Clients along with 12 successful teams as part of the initial successful cohort.

Certifications and Patents
- A1Grade Patent applied from Samsung related to 5G Network Slicing Modelling.
- Oracle Certified Professional Member in Java SE programming.
- Amazon Web Services: AWS Networking and Data Management Certification by Samsung.
- Jenkins CI/CD Essential Certification by Samsung.
- Ansible Essential Certification by Samsung.

Notables
- Active Reviewer for IEEE Communications Magazine and IEEE Access Journal, 2016-Present.
- Awarded the Carnegie Mellon – Portugal fully funded PhD Scholarship from Real-Time and Embedded Computing Systems (CISTER) Research Centre.
- Awarded the Queens Diamond Jubilee Scholarship from Government of UK, for pursuing a postgraduate program at University College London.