#### Dr. Ganesh Chandrasekaran

Bangalore, E-mail: ganeshcece@gmail.com.

India, 560037. Web: http://knowganesh.azurewebsites.net/

Phone: +919488558365

#### **Personal Profile**

Head of Telco Orchestrator Solutions at Samsung R&D, leading E2E automation for the 5G domain (Core, Access, and Transport Networks). Despite my leadership role, I remain a hands-on engineer, actively contributing to development and innovation. Awarded over \$700,000 in research funds and scholarships globally. Passionate research engineer seeking opportunities to contribute to cutting-edge technology.

### **Contributions to the Organization**

- ONAP Open Source Project: First from Samsung to contribute, achieving over 10,000 lines of code (LoC) and 100+ commits, leading the team to become a top 10 contributing organization in 2020.
- Goal of creating Samsung's presence in Nephio Project: Initiated contributions, achieving 20+ commits and 2,000 LoC, driving the team to collaborate with Google and Nokia. Delivered 3 out of the top 10 community contributors for Release-1, including myself in 2023-24.
- Research Papers and Patents: Authored 3+ journal research papers and white papers on Samsung Network Slicing Solutions. Delivered 5+ commercial patents on telco orchestration solutions.
- 3GPP Contributions: Delivered 4+ accepted work items in 3GPP SA5, focusing on Closed Control Loop and Digital Twin technology.
- Mentorship: Mentored and created 10+ first-time research paper publishers and patent creators.

## **Recognitions from the Organization**

- Mosaic Grand Discussion Award: For an idea submitted on hyper-connected and hyper-personalized scenarios (2023).
- Samsung Open Source Leader Award: Received for 3+ consecutive years 2021-24.
- Samsung Best Paper Award: Awarded in 2020 and 2023.
- Career Advancement: Fast-tracked from Senior Engineer to Heading 4+ commercial projects in over 6 years.
- Vanguard Awards Nominee: For Social Impact in 2024.
- Numerous Personal and Team Awards: Including Annual award, Best performer award, Ace of the Year award, and Star of the Quarter award.

### **Education**

- **PhD** in Telecom network, 2014-2017, 5G Innovation Centre (5GIC), Institute for Communication Systems (ICS), *University of Surrey United Kingdom*.
- **Exchange program** in Institute of Computer Networks, *Tsinghua University*, *China*, for 1 year.
- **Masters** in Telecommunications, 2012-2013, *University College London (UCL)*, London, United Kingdom, Grade: Distinction.
- **Bachelors** in Electronics and Communication, 2007-2011, *Anna University of Technology, India*, CGPA: 9.3 /10 (Gold Medallist /University Rank Holder).

### **Employment History**

**April 2021 to Present:** Samsung Electronics HQ, Network Business, Suwon, South Korea. Position: Head of Telco Orchestration Part. Role: Product Management, Architect and Development.

- Involved in product management, customer interaction, design and development planning.
- SMO-Service Management and Orchestration for 5G vRAN: O-RAN compliant platform that enables end-to-end network automation. Team Size: 10
- CO-Cloud Orchestrator for 5G: Integrated platform that is responsible for the lifecycle of complete end-to-end network domains. Team Size: 8
- NSMF/NSSMF-Network Slice Manager for 5G: Well-designed mechanisms and tools that enable closed loop automation of network slicing lifecycle management. Team Size: 4
- MANO/VNFM/NFVO Solution for 4G: Providing carrier-grade VNFs lifecycle management for mobile networks such as virtualized EPC and IMS. Team Size: 11

**February 2018 to March 2021:** Samsung Electronics HQ, Network Business, Suwon, South Korea. Position: Staff Engineer. Role: Design and Development.

- Design and Develop Network Slice Manager and Cloud Orchestrator solution to manage the life-cycle of Containers/Virtual Network Functions and 5G Slices in a seamless fashion.
- Development of ONOS/ODL based Samsung SDN solution to auto-configuring data centre legacy fabric to reduce time and feature development cycle using config-management tools.
- *Technologies Involved:* Kubernetes, Kubernetes Operator, Helm, Docker, Java Spring Cloud, go lang, Microservices, CI/CD, Jenkins, SQL, NoSQL, AWS, Ansible and Security Management.

### August 2017 – December 2017: Riverbed Technology, United Kingdom.

Position: Software Engineer. Role: Software Development

- Designed and developed solutions for the SDP platform to simplify orchestration of network service delivery.
- *Technologies Involved:* Golang, Micro-service, Docker, Nomad, Consul, Go-Micro, YANG, Sysrepo, Vault, Nexus, Java, VyOS, Github, Trello and Travis CI.

# **December 2016 – May 2017:** ECIT – Queens University Belfast, United Kingdom.

Position: Research Fellow. Role: Research and Development

- Research and Design Stateful OpenFlow multi-table data plane architecture for deployment within an OVS, SDN environment.
- Investigate network functions, 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. Role: Software Development

- Development and migration from Desktop application to Java based web application, American Depository Receipts Cancellation Project for BNY Mellon.
- Technologies Involved: Java, JSP, Servlets, Oracle and Spring.

#### Co-founding Experience:

2014 - 2016: 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**

- Oracle Certified Professional Member in Java SE Programming
- Cloud Architecture: Core and Advanced Concepts (Samsung, 2019)
- Jenkins CI/CD Essential (Samsung, 2020)
- Certified Kubernetes Administrator (Samsung, 2020)
- Amazon Web Services: Storage and Data Management (Samsung, 2019)
- Cloud Architecture: Core and Advanced Concepts (Samsung, 2019)
- Amazon Web Services: AWS Networking and Data Management (Samsung, 2019)

# **Notables**

- By acknowledging the importance of technology trends, I encouraged over 20 coworkers to actively engage in open-source activities. This collective effort successfully positioned Samsung in top 10 contributors, thereby enhancing business visibility and recognition among customers.
- Recognized as the best performer by the Corporate Vice President of Samsung Electronics for my significant contributions to open-source code, which had a positive impact on the Network Business, 2020.
- Professional Certificate of Intrapreneurialism by Global Intrepreneurs Institute, 2024.
- Active reviewer for IEEE Communications Magazine and IEEE Access Journal since 2016.
- Awarded a fully funded dual-PhD scholarship from the CISTER Research Centre, combining Carnegie Mellon University (USA) and the University of Porto (Portugal).
- Received the Queens Diamond Jubilee Scholarship, covering course fees and living expenses, for pursuing a postgraduate program at University College London, UK.
- Awarded the Government of Ireland Scholarship to pursue a Master's degree in Ireland.