JEROLD KINGSTON **GNANASEKARAN**

RESEARCH ENGINEER

+33 0767273543 | jerold.kingston77@gmail.com | 3 Rue Soutrane, Valbonne | www.linkedin.com/in/jerold-jk

PUBLICATIONS, PROJECTS & HONORS

- Personal projects: Github
- Rajya puraskar Recipient [2013]
- Video Analysis Using Deep Learning in Smart Gadget for Women Saftey. [Springer-2023]
- Voice Control Robotic Arm Using Machine Learning. [IJAST -2020]
- Greening 5G: Empowering Dynamic DRX With Deep Reinforcement Learning and O-RAN. (IEEE-current)

SKILLS

- Programming languages: C/C++, Core Java, Python, Go and Bash.
- DevOps: Git, CI/CD, GitHub and GitLab.
- Operating Systems: Linux & MacOS.
- Databases: MySQL and MongoDB.
- Cloud Computing: Microsoft Azure.
- Containerisation & Orchestration: Docker, Helm & Kubernetes.
- Hardware: RaspberryPi and FPGA.
- Networking: TCP/IP, UDP, Wireshark, LAN/WAN & Configuring routers.
- Strong knowledge in 4G/5G radio systems and Artificial Intelligence.
- Interpersonal & communication skills: Empathy, Active Listening, Adaptability, teamwork and Confidence.
- Additional skills: Fast learner, Analytical, Problem solving and troubleshooting.

CERTIFICATIONS

- Core Java and MySQL (Qspider software solutions)
- Google IT Support professional certification (Coursera)
- Deep Learning and Neural Networks (Coursera).
- Robotics and Embedded Systems (KCG college of Technology)
- Vocational training in Communication system (BSNL telecom operator, chennai)
- Ethical Hacking (IIT Madras)

LANGUAGES

- English and Tamil (Fluent)
- French (Basic)

PROFILE

Proactive and skilled professional with a strong educational background in telecommunication. Experienced in supporting and executing high-level projects, with expertise in network structures, routing, and mobility technologies. A quick learner with excellent communication and organizational skills, capable of delivering effective technical solutions and managing responsibilities independently.

EDUCATION

Master of Science in Intelligent Communication System

Eurecom Sophia Antipolis | Biot, France — MAR 2024

- **Carnot TSN Excellence Scholarship Recipient.**
- I completed coursework in Azure Clouds, Software Technologies, Operating Systems, Information Systems, Mobile Applications, Mobile Communication Systems and Machine Learning.
- **Semester Project: 5G Intelligent System** - Enhanced the Key Performance Measurements (KPM) V3 service model by adding Radio Access Network (RAN) performance-related parameters. Modified the KPM RAN function to transmit frequent data based on granularity using OpenAirInterface (OAI) software.
- **Research Project: Energy-Efficient Communication for Task-Oriented Networks and Intelligent Communication Systems** - Focused on reducing computational costs for transmitted sources in distributed source networks.

Bachelor of science in Electronics and Communication Engineering

KCG College of Technology | Chennai, India — SEP 2020

- **Thesis: Object Detection Robotic Arm using machine learning** – Implemented object detection using the SSD (Single Shot Detector) machine learning algorithm and integrated it with a robotic arm control procedure for applications in hazardous environments

PROFESSIONAL EXPERIENCE

Freelancer Contributor

IRAIKURAL | Dortmund, Germany — 2024 - PRESENT

- Spearheaded operational strategies and oversaw the day-to-day activities of the organization to ensure smooth and efficient operations.

Research Engineer

Eurecom Sophia Antipolis | Biot, France — 2024 - PRESENT

- Contributed to a European project by developing Helm-based applications, developed a Command line interface (CLI) to interact with nodes and pods, facilitating traffic management within Kubernetes clusters using REST APIs.
- Collaborated with the Samsung R&D team to integrate a RAN control service model for conducting machine-learning analysis using OpenAIrInterface (OAI) software.
- Improved Quality-of-service (QOS) by creating a dynamic Discontinuous reception Energy saver (D-DRXES) application using a deep reinforcement learning (DRL) based Deep Q-Network algorithm and achieved 50% power saving in OAI software.
- Designed and developed a Handover and data monitoring xApp for the ns-3 simulator and integrated it into FlexRIC (Near-RT RIC) to enable a large-scale testing platform for OAI software.

Software Developer

Eurecom Sophia Antipolis | Biot, France — MAR 2023 - AUG 2023

- Developed a cloud-native, production-grade software application (xApp) for multiple use cases, including traffic steering, load balancing, slice SLA and energy saving, Developed applications in C++, Go and Python.
- Designed a new software framework (xApp Framework) and an interface to address latency and policy enforcement challenges.
- Authored comprehensive procedures, reports, and technical documents using clear and accessible terminology.