

JEROLD KINGSTON GNANASEKARAN

RESEARCH ENGINEER

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PUBLICATIONS, PROJECTS & HONORS

- Personal projects: [Github](#)
- Rajya puraskar Recipient [2013]
- [Video Analysis Using Deep Learning in Smart Gadget for Women Saftety.](#) [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, 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, Implementation of REST APIs to interact with the Kubernetes cluster, and facilitating traffic management within Kubernetes clusters.
- Collaborated with the Samsung R&D team to integrate a RAN control network-slicing service model for conducting machine-learning analysis.
- Created a dynamic DRX optimization xApp using deep reinforcement learning (Deep Q-Network) and implemented a mechanism to adapt dynamic DRX optimization and achieved 50% power saving in OpenAirInterface software.
- Designed and developed a Mobility Management and data collection xApp for the ns-3 simulator and successfully integrated it into FlexRIC (Near-RT RIC 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.