






Karthick Balaji R

Senior Member of
Technical Staff

My Contact

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Education Background

MSc Theoretical Computer Science
PSG College of Technology, Coimbatore
June 2016 – May 2021
CGPA: 8.22

Skills

- C++ programming
- C programming
- Typescript
- Javascript
- Angular Framework
- HTML
- CSS
- Python
- Data Structures & Algorithms
- Object Oriented Programming
- Computer Networks

Tools

- GIT
- JIRA
- NPM
- IntelliJ

Projects

- Developed a python application to extract newsfeeds from RSS feeds based on user requests using web crawling.
- Programmed Green Vehicle Routing Problem using python, Gurobi Optimiser and Branch and Bound Algorithm.

Achievements

- Won Customer Centricity award from QNu labs for POC demonstrations.
- Member of entrepreneur's club of PSG College of Technology.

About Me

Energetic and proactive professional with strong proficiency in C, C++, and Python, seeking a challenging role as a Software Developer. Dedicated to contributing to organizational growth while continuously advancing personal development.

Professional Experience

Linx Works Pvt. Ltd | Senior Member of Technical Staff
Feb 2023 – Present

- Developed 50+ APIs and front-end UI for apiplatform.io developer forums application using Angular Framework and Linx's API developer suite, apiplatform.io
- Developed 50+ APIs that manage vendors and media for the Micro monetization Application, Canvas Space.
- Developed 100+ APIs for task management application for KnackGlobal.
- Worked on the front end development of a ticket management application.
- Used Jira and Git for project management.
- Worked on MAC environment.

QNu Labs Pvt. Ltd | Software Engineer
Sept 2021 – Feb 2023

- Worked on developing a Quantum secure VPN (QVPN) software using Post Quantum Cryptography and OpenSSL library.
- Analysed the Bandwidth of the VPN tunnel using network monitoring tools like wireshark, iperf, tcpdump and ettercap.
- Conducted successful Proof of Concept demonstrations of quantum secure VPN in eight government organisations and military colleges.
- Worked with L2 switches and Cisco routers to setup different network connection scenarios for QVPN analysis and demonstration.
- Worked on bug fixes and features development in Quantum Key Distribution software.
- Worked on developing quantum secure secrets management tool with Hashicorp Vault.
- Worked on Linux and Windows environment.

QNu Labs Pvt. Ltd | Research Intern
Jan 2021 – Aug 2021

- Published a paper on generating Random Numbers using enhanced Non-Deterministic Random Bit Generator based on Hash based DRBG.
- Generated 1GB of True Random Numbers with a seed of around 500 bits.
- Randomness evaluation and statistical analysis were done using NIST test suit.
- Python is used for its implementation.
- <https://iopscience.iop.org/article/10.1088/1402-4896/ad0811>

Chennai Mathematical Institute | Research Intern
May 2019 – Oct 2019

- Worked on Formal Analysis of Security Protocols. Modelled and Analysed them using Tamarin Prover.
- Studied 5G Authentication and Key Agreement(AKA) protocol.