

Krishnakumar Muthukrishnan

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Objective

An experienced Software Developer with a Master's degree in Computer Science & Engineering and 5+ years' experience as a Software Development Engineer at **Tata Consultancy Services** assigned to **Research & Development** project of a French Telecommunication organization **Alcatel-Lucent** for developing and maintaining their legacy PABX system currently seeking a Software Developer role to make the most of my coding skills and leverage the goals and ambitions of the organization.

[\(Click here for detailed profile\)](#)

Education

MASTER OF SCIENCE – COMPUTER SCIENCE & ENGINEERING

STATE UNIVERSITY OF NEW YORK – BUFFALO, NEW YORK

- Expected graduation 12/2022
- CGPA - 3.29
- **Relevant Courses** - Machine Learning, Algorithm Analysis, Parallel & Distributed Computing, Software Security, Computer Networks, Computer vision & Image processing, Blockchain, Android Malware Detection (Java) ([click here for complete list](#))

BACHELOR OF TECHNOLOGY: INFORMATION TECHNOLOGY

THIAGARAJAR COLLEGE OF ENGINEERING, ANNA UNIVERSITY – MADURAI, INDIA

- Graduation - 04-2015
- CGPA - 3.33

Relevant Experience:

2019-07 – 2021-05

Information Technology Analyst

Tata Consultancy Services, Chennai, India

2015-06 - 2019-06

System Engineer

Tata Consultancy Services, Chennai, India

Technical Skills ([click here for detailed view](#))

Proficient in Development Languages

: C, C++, ReactJS/React-Native, HTML,CSS

Efficient and effective in using Scripting languages

: Python, Javascript, GNU Bash

Adept in database skills

: SQL, Firebase

Familiar with

: Java , Solidity

Protocols

: TCP/IP,UDP,HTTPS,SNMP,DHCP,RTP ,SSL/TLS, DTLS.

Framework / Libraries /API	: OpenMP, OpenMPI, PySpark, Pandas, Numpy, POCO, MVC
Platforms & Virtualization	: Windows, Unix, Linux, VmWare, KVM
Tools	: VScode , Remix, GitHub, Mercurial, Jenkins, Putty, WinSCP, Wireshark, Android studio, JIRA, VmWare Esxi, KVM Manager, Klocwork Analyser.
Leadership	: Lead multiple small scale development activities over the span of 6 years.

Notable Projects: ([* click here for elaborate view](#))**

(TCS-ALE) DTLS based End-to-End Security Architecture :([* click here for elaborate view](#))**

- 100% software based security native implementation replacing the HSMS(Hardware Security Modules).
- Development involved incorporation of the encryption modules in the existing design incorporating the Object Oriented Programming approach.
- Gained a good grasp of the utilization of POCO and OpenSSL libraries through this development.
- Languages used includes C++, Bash (Shell scripting) and Python.

(TCS-ALE) Cloud migration of legacy PABX system :([* click here for elaborate view](#))**

- I was part of a development team that worked on migration of the legacy hardware based system to a virtualized cloud environment (AWS).
- I was involved in the client side implementation which maintains, validates and does a periodic license checks of the products activated by the client through communication with the cloud servers deployed.
- The tech stack includes C++ with extensive usage of the XMPP protocol for instant secure communication over the Linux platform.

(TCS-ALE) v4<=>v6 signaling translator:([* click here for elaborate view](#))**

- Involved in development and maintenance of this signaling translator (OST64). Application was built from the scratch with C++ and Bash scripting following the MVC patterns as the backbone to deploy over the Linux platform.
- Application was designed to be deployed over a virtualized environment (likes of VmWare, KVM, HyperV)

(UB-CSE) Server-client webchat application:([* click here for elaborate view](#))**

- As an academic project designed a full fledged Server-Client chat application using C++ and prominent networking protocols like TCP,UDP which can act as a replica of WhatsApp web.
- CPP data structures like arrays,lists and pointer manipulations prominently leveraged to achieve the goal here.

(UB-CSE) LUCID Vending - Mobile Application:([* click here for elaborate view](#))**

- This cross-platform(Android/ios) application was built for a client requirement as part of the Master's Project development course.
- Requirement is to build a full fledged online payment application specifically targeting the vending machine sales including provision for other utility functionalities as well.
- Tech stack included React-Native,Tailwind CSS, Javascript, Firebase, StripeJS for payment related functionalities.

(UB-CSE) Minor Academic Projects -Techstack -Python, OpenCV, Solidty, NodeJS.([* click here for elaborate view](#))**