AKASH GOYAL

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PROFILE SUMMARY

- 7.5+ years of experience in developing software using C, C++, Linux and Windows.
- Experienced software developer with background in blockchain, IoT and automotive domain.
- Experience creating large-scale distributed systems, as well as knowledge of distributed system architecture for scalability, performance, and consistency.
- Experience working with both onshore and offshore clients, as well as becoming proficient in AGILE and Scrum methodologies from requirement gathering to production releases.

TECHNICAL SKILLS

Data Structures and Algorithms
Languages: C, C++(11/14), VC++, Python (Basic), Core Java (Basic)
Testing Framework: CPP unit test, Google test
Core Concepts: Data Structures, Algorithms, Object Oriented System Design, Distributed System development and Inter Process Communication(IPC)
Developer Tools: GCC, GDB, Valgrind, Coverity, CPPCheck, SonarQube, Git, Docker, Jira, Confluence, VS Code
Operating Systems: Linux, Unix, Windows

WORK HISTORY

VMware — Bengaluru, Karnataka

Member Of Technical Staff III — *June 2021 – Present*

Project: Concord-Blockchain

- Implemented db-snapshot feature, which takes the most recent backup of the rocksdb database and used to restore faulty replicas.
- Implemented state transfer feature, where lagging replica, to fetch blocks from other replica and bring lagging replica to consensus network.
- Actively involved in the development of the open source BFT **concord-bft** library.
- Currently developing end to end demo blockchain using concord-bft as a consensus and Ethereum as an execution engine.
- Set up a code coverage server to generate code coverage reports periodically.
- Implemented test suits for db-snapshot and state transfer feature in python for apollo framework as part of function test.
- **Environment**: C++(11/14/17), STL, Multithreading, Python, GTest Framework, Linux, Docker

Siemens Technology — Pune, Maharashtra

Software Engineer — *Sept 2019 – June 2021*

Project: PTC (Positive Train Control)

- Implemented an API used to find the shortest and most unique path from a rail track database. It is a crucial factor in Moving Block, since it defines the proper direction for the train to take after gaining movement authority.
- Implementation and enhanced of SIL4 device ATP (Automatic Train Protection) and HMI visualization solutions for US railway systems.
- **Environment**: C, C++11, STL, Multithreading, Python, CPPUnit Test Framework, QT, Linux and Windows.

Hughes Systique Corporation — Gurugram, Haryana

Senior Engineer — *March 2018 – Aug 2019*

Project: Qubo Smart Indoor Camera

- Develop and implement OOI, ROI, Rules, Scenes, and Modes features for an Smart Camera.
- Improved effectiveness of tools and improved accuracy of code after carefully monitoring memory corruption and memory leakage across the module using Valgrind.
- Experience working with RESTful API's.
- **Environment**: C, C++11, Multithreading, JNI, MYSQL, Core Java, STL, Linux Platform.

Collabera Technology Pune, Maharashtra
Software Engineer *July 2017 – March 2018*

Project: Philips IntelliSpace

- Design and Develop feature for Digital Breast Tomosynthesis (DBT) – core and feature enhancement.
- **Environment**: `C`, `C++11`, STL, Multithreading

KPIT Technologies Ltd Pune, Maharashtra
Software Developer *April 2015 – June 2017*

Project: Cummins INSITE

- Develop and enhanced the INSITE security features, LCT (License Configuration Tool), Cummins Digital Signature maintenance for the INSITE tool.
- Development of tools and utilities to aid in the development process.
- **Environment**: `C`, `C++11`, `VC++`, `C#`, STL, MYSQL, WPF, Multithreading, Windows

EDUCATION

PG Diploma in Advanced Computing Aug 2014 – Feb 2015
Centre for Development of Advance Computing (CDAC), Pune, Maharashtra

B.Tech in Electronics and Communication Aug 2009 – May 2013
Lovely Professional University, Jalandhar, Punjab, CGPA: 9.09/10.00

XII(Senior Secondary) Science April 2008 – June 2009
CBSE Board (Holy Public School, Agra, Uttar Pradesh), Percentage: 86.20