# Mantosh Kumar

Hamilton - Ontario - Canada

### Summary

Software Developer with over 14 years of experience across multiple phases of the software development lifecycle. Strong competence in C, Python, Django, system design, and back-end development. No sponsor required for employment in the US, Canada, or India.

**GitHub Profile**: https://github.com/mantoshkumar1

## **Professional Experience**

Nokia Corporation Ottawa, Canada

Staff Test/Automation Engineer

Aug 2020-Present

- O Designing and developing an automated testing framework for next-generation optical networking devices.
- O Gathering test requirements directly from feature architects and formulating automatable test cases.
- O Migrated legacy testing framework to the latest Infinera proprietary platform (PACE), fully integrated into CI/CD pipeline. Ensured no bugs and completed end-to-end in 5 months with 1000+ test scripts.
- Maintaining system integration across testing framework, CI/CD, and 24/7 test cycles.
- O Mentoring team members, interviewing candidates for software dev positions, reviewing code, and collaborating with cross-functional teams and stakeholders.
- o Technologies: Python, gRPC, YAML, Git

KI labs Munich, Germany

Backend Engineer

May 2018-Nov 2019 (1 year 6 months)

- o Built the MVP of a B2B chemical e-commerce platform among the first in the European market.
- O Developed RESTful APIs using Django; designed databases following n-tier architecture.
- O Collaborated with front-end teams and product managers to deliver end-to-end features.
- O Focused on code quality through unit tests and Cypress-based end-to-end automation.
- Automated CI/CD pipelines with Jenkins to streamline deployments.
- O Website: https://chemondis.com/marketplace/
- O Technologies: Python, Django, PostgreSQL, RESTful, Cypress

Siemens AG Munich, Germany

Research and Development Intern

Feb 2017–Sept 2017 (7 months)

- O Designed a RESTful control interface and real-time monitoring system for SDN/NFV-based industrial networks.
- O Developed a proof of concept for intent specification and monitoring for time-sensitive applications.
- Website: www.virtuwind.eu
- O Technologies: Java, Python, RESTCONF, SDN, Mininet, Yang, Maven, OSGi

Intel Corporation Munich, Germany

Protocol Stack Engineer (Part-time)

Feb 2015–Feb 2017 (2 years)

- O Contributed to Radio Resource Control (RRC) development and testing for Intel's XMM 7360 modem platform.
- O Produced functional specs and implemented 3GPP-aligned features with Intel's internal requirements.
- Built Matlab tools to visualize OTA message traces and analyze modem performance metrics.
- Developed ENAS/UICC decoder modules and initiated automation framework for unit testing.
- O Automated project status monitoring and collaborated closely with internal users for improvements.
- O Languages: C++, Matlab, Python

Cisco Systems Bangalore, India

LTE Engineer

Jan 2012-Sept 2014 (2 years 8 months)

- Contributed to the development of core network solutions for 2G/3G/LTE/Wi-Fi mobile networks.
- O Built simulation tools to test and validate mobile network behavior, improving deployment efficiency.
- O Collaborated with cross-functional teams and stakeholders to ensure successful delivery and support.
- Technologies: Python, Wireshark

Aricent Group Bangalore, India

Software Engineer

Jan 2011-Jan 2012 (1 year)

O Built a prototype of a location-enabled social networking application showcased at Mobile World Congress 2012.

- Created use cases and process flows to support business requirements and integrated social and location-based features.
- o Technologies: Java, Web2.0, MySQL

#### Education

**Technical University of Munich** 

M.Sc. in Computer Science (2.4/5, Best: 1)

West Bengal University of Technology

Bachelors in Computer Science (7.7/10, Best: 10)

Munich, Germany

Oct 2014-Oct 2017

Kolkata, India

July 2006-June 2010

#### **Technical Skills**

**Programming**: C, C++, Java, Python, Matlab, Yang, Bash **Software Skills**: Flask, Django, SQL, PostgreSQL, RESTful

Tools: Git, UML, Maven, Wireshark, LaTeX, Cypress Platform/API: Linux, SuperMUC, Repast HPC

Profiling: Valgrind, Gprof, Perf, PAPI, VTune Amplifier XE, Scalasca

## **Awards and Recognition**

- Heroes of Tomorrow Award, Intel Corporation (Jan & Dec 2016): Received twice in one year for outstanding contributions to the PS module of Intel XMM 7360 modem.
- o **Graduate Aptitude Test in Engineering (GATE) Computer Science**: National-level exam conducted by IISc and IITs for engineering graduates.
  - **GATE 2013**: Top **0.87%** (Out of 224160 applicants)
  - **GATE 2012**: Top **0.76%** (Out of 156780 applicants)