

# CHAITANYA DANDUGULA

Bangalore - 560035

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## SUMMARY

Telecommunication Engineer with expertise in C and C++ programming with more than 10 years of design and development experience. Familiarity with software development in Python, Golang etc. Domain knowledge in Bluetooth, IVR applications and networking applications.

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## SKILLS

- Proficiency in software development in C, C++ with more than 10 years of experience.
- Proficiency with GNU/Linux development environment with more than 10 years of experience.
- Solid understanding of object oriented analysis, design and programming.
- Strong debugging/troubleshooting skills.
- Proficient with Golang & docker.
- Proficient with network monitoring tools like Wireshark.
- Familiarity with SQL, git, valgrind, Perforce and debuggers(gdb / MS-VS debugger).
- Limited exposure to Haskell & functional programming.

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## RELATED WORK EXPERIENCE

**Spirent** Bangalore, *India* (March 2019 - Present).

*Staff Software Engineer*

- Next-gen network testing product development using micro services architecture.
- Opensource contribution - Luddite (micro-framework for RESTful services).
- Spirent TestCenter development.
- Technologies: C++, REST, PostgreSQL, Golang, Python, Docker, Spirent network testing hardware.

**Infinera** Bangalore, *India* (1 Year).

*Lead Software Engineer*

- Development of optical chassis simulator in Python.
- Developed features for control plane on the optical networking element.
- Worked on implementing intelligent L2 switching.
- Worked on a NodeJS tool to diagnose chassis.
- Technologies: C++, Linux, Broadcom SDK, QNX.

**Actiance** Bangalore, *India* (8 Months).

*System Analyst*

- Contributed towards building a recording solution- AMR (composed of 8 modules) for Skype for Business.
- Took ownership of the very unstable and buggy STUN module and made it one of the stable components within 6 months.
- Worked closely with the performance team to improve the overall performance of AMR (both in terms of memory footprint and execution speed).
- Technologies: C++, Poco, SIP, STUN, Skype for business front-end server.

**Unified Messaging Systems** Bangalore, *India* (4 Years).

*Senior Software Developer*

- Primary responsibilities includes the design, development and testing of additional components of the back-end system for sending out voice alerts (IVR application).
- Contributed to all phases of the software design along with the technical architect team.
- Design, development and testing of a call processing library to interface with Dialogic HMP (E1/T1 telecom cards) platform.
- Design, development and testing of a voice conference application from the ground up.
- Monitoring and resolving issues related to the production setup of the back-end system.
- Worked on advanced C++ design patterns like policy based class design, command objects and object factories.
- Extensive usage of C++11 features, STL & Boost libraries (Multithreading, Containers, etc) across all projects.
- Extensive usage of SQL (MS-SQL) in all the projects.
- Developed Python scripts for Database monitoring on the production environment.
- Provided inputs to the business development team during the product specification review.
- Assisted sales team in better time estimation of the various deliverables (software).
- Working with a distributed team across different geographies.

**Fraunhofer Research Institution for Applied and Integrated Security** Munich, *Germany* (6 Months).

Student Research Assistant

- Master thesis project - “Networking for smart meters”
- Evaluation of different network architectures suitable for building a network between a smart meter and a gateway.
- Evaluation of different network security protocols suitable for the network.
- Technologies - TCP, UDP, HIP, IP over transmission lines.

**Nokia Siemens Networks** Helsinki, *Finland* (3 Months).

Summer Trainee

- Part of the Flexiplatform IP Networking team.
- CPP Unit testing of the IPSec module of Flexiplatform<sup>1</sup>.
- Setting up of complex networking scenarios using AdvancedTCA (ATCA) blades for testing of IPSec.
- Setting up of a development server, for my team, based on RHEL and a custom software development toolchain for WindRiver Linux platform.
- Worked in a Agile software development environment.

**MindTree** Bangalore, *India* (2 Years).

Software Engineer

- Design and implementation of Bluetooth profiles and protocols for EtherMind<sup>2</sup>.
- Porting of EtherMind to various embedded systems with proprietary RTOS.
- Integration of Audio codecs with the Bluetooth stack.
- Auditing of security aspects of Bluetooth enabled devices.
- Bluetooth conformance testing with PTS and FTS tools.
- Development of scripts in Python for automated code-formatting.

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## EDUCATION

**Kungliga Tekniska Högskolan** Stockholm, *Sweden*.

Master of Science - Communication Systems, 2012

**P.E.S Institute of Technology, Visveswaraiah Technological University** Bangalore, *India*.

Bachelor of Engineering - Telecommunication Engineering, 2007

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<sup>1</sup>A proprietary OS for base station hardware from NSN.

<sup>2</sup>A proprietary Bluetooth stack of MindTree Ltd.

## OTHER WORK EXPERIENCE

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**Narlax Info Systems** Bangalore, *India* (1 Month).

Instructor

- Taught “Algorithms and Data Structures” course for final year B.E students.

**Youth for Seva** Bangalore, *India* (2 Years).

Volunteer

- Helped a team of doctors in conducting medical chekup camps at Govt. primary schools across Bangalore.
- Lead a team of 5 volunteers in organizing hospital visit drives for the Govt. schools students.
- Lead a team of 15 volunteers in planning and organizing an inter-school cultural festival - ‘Chiguru’(participants: ~1500)
- Volunteered for various activities of Youth for Seva in Education and health care divisions.

**Beta Labs Pvt. Ltd.** Bangalore, *India* (3 Months).

Technical Director

- Co-founded ‘Semester-9’ - a unique education program to connect the fresh Engineering graduates to the start up community.
- Formulated a 3-month go-to market plan.
- Setup the website and the course syllabus.
- Marketed the idea to 5 Engineering colleges with around 250 students.
- Marketed the idea to startup incubators (Microsoft Accelerator, Open Coffee Club) and bought a few early stage startups on board.

## PUBLICATION

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- Deepak M Subramanian, *Chaitanya Dandugula*, Deepak Kumar, Jayanth V and Karun Ramakrishnan, “**Intelligent Traffic Controller using image processing Techniques**”, IEEE INDICON 2007, Bangalore, India.

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*LinkedIn profile.*