

Lakshadeep Naik

Curriculum Vitae

Bonn

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Education

- 2017–current **Masters in Autonomous Systems**, Bonn Rhine Sieg University of Applied Science, Bonn.
- 2011–2015 **B.Tech in Electronics and Communication Engineering**, National Institute of Technology Goa, Goa, CGPA - 8.53/10.
- 2009–2011 **Higher Secondary School Certificate**, Mushtifund Higher Secondary School, Goa, Percentage - 75.66.
- 2000–2009 **Secondary School Certificate**, Mushtifund Secondary School, Goa, Percentage - 89.33.

Bachelor Thesis

- Title *Cloud based networked Robotics*
- Supervisors Dr. Nithin Kumar, Mr. Pramod Kumar Maurya
- Description Thesis focussed on building cloud based network of robots, which relies on merging the two technologies of cloud robotics and swarm robotics to build cloud based centralized network of small, low power consuming robots which can do the tasks involving heavy computations.

Work Experience

- December 2015 – February 2017 **Project Assistant II**, NATIONAL INSTITUTE OF OCEANOGRAPHY GOA, Goa.
Part of CSIR Network project. Worked on architecture design and software development for cooperative motion control between Autonomous Marine Vehicles using Robot Operating System (ROS). Migrated existing AUV (Autonomous Underwater Vehicle) code to ROS. Also worked on development of softwares for simulating AUV missions, generating cooperative missions, Qt based GUI for Autonomous Vertical Profiler (AVP) etc. Cooperative software was tested using hardware in loop simulation between AUV and ASV. Designed acoustic communication architecture for Seabed Resident Event driven Profiling System (SREP). Tested firmware of SREP using hardware in loop simulation and shelter water tests. Designed and developed firmware for underwater camera system for coral monitoring. Various GOPRO series cameras such as HERO 4, Hero 2 as well as USB cameras were interfaced with the system. Most of the work was done using C, C++, Qt, ROS (Robot Operating System), MATLAB and Python

- July 2015 – **Software Developer**, VACATION LABS, Goa.
 December 2015 Part of core web-app development team. Worked on adding various new features to existing product along with some product enhancement builds. Worked as Full stack Ruby on Rails developer, right from preparing implementation document based on build specs, to coding the backend, frontend, writing unit, functional, integration tests and deploying builds to production.
- May 2014 – **Project Intern**, NATIONAL INSTITUTE OF OCEANOGRAPHY GOA, Goa.
 July 2014 Part of remote health monitoring system under CSIR 800 project. Worked on developing a Web API, which could be used for storing the patients health related data on cloud. It could also connect to different health devices and record the data via Bluetooth Low Energy (BLE). Also worked on development of Inertial Measurement Unit (IMU) to improve patients experience in an ambulance.
- August 2013 – **Application developer**, GOOGLE STUDENT CLUB, NIT Goa.
 April 2014 Developed Project Scholar - project management app for college student using Google Cloud Platform. This application was selected among the 8 finalists for Google Cloud Developer Challenge 2013 in India

Skills

Programming	C, C++, PYTHON, MATLAB
Web	HTML, CSS, JAVASCRIPT, ANGULARJS, RUBY ON RAILS, PHP
IDE	SUBLIME TEXT, ECLIPSE, QT CREATOR, CODEBLOCKS
Technologies	ROS (ROBOT OPERATING SYSTEM), MVC, MATLAB, QT, GIT, OOPS
Database	PostgreSQL, MySQL
Hardware	Beaglebone, TS7550, TS7600, Raspberry Pi, PIC, AVR
Operating Systems	Ubuntu, Debian, Windows

Projects

- Cloud based networked robotics (Bachelor thesis)
- Cooperative motion control between Autonomous Underwater Vehicles (Part of CSIR Network project)
- Seabed Resident Event driven Profiling System (Part of CSIR network project)
- Underwater Camera System for coral monitoring
- Remote Health Monitoring System (Part of CSIR 800 project)
- Autonomous maze solving robot based on image processing
- Intelligent Home automation system
- Project management system for college students (GCDC 2013 project)

Interests

- Robotics
- Coding
- Music
- Soccer