

Work Experience

Research Assistant **LiveLabs@SMU** **June - August 2015**

- Proposed and prototyped a system to detect occupancy and hogging of an area in real-time
- The IR sensor prototype achieved 80% occupancy detection accuracy
- Work was published in the **International Workshop on Internet of Things towards Applications, ACM Sensys 2015**

Student Developer **Google Summer of Code 2015** **June - August 2015**

Organization: Pidgin, Finch and libpurple

- Reversed engineered and implemented [Google+ Hangouts protocol for libpurple 3.0](#)
- Protocol to be merged in libpurple3 (currently in development)

Software Development Intern **Pyoopil Educational Technologies** **June - July 2014**

- Wrote 2 out of 5 backend modules for the Pyoopil Dynamic Learning Environment; backend implemented in CakePHP and MySQL

Organizer **ingeNUity'14, NIIT University** **Dec 2013 - March 2014**

- Organised NIIT University's techno-cultural fest, which catered to audiences from NCR and Jaipur
- Lead the technical team which was responsible for the fest website and print material, and also served as an advisor to the sponsor and event teams

Education

NIIT University **B.Tech Computer Science and Engineering** **Expected Graduation: 2016**

Completed coursework: Data Structures, Algorithms, Data Mining, Artificial Neural Networks, Web Intelligence and Algorithms, Natural Language Processing, Computational Geometry and its Applications, Computer Vision, Operating Systems, Computer Architecture, Databases, Computer Networks, Discrete Mathematics, Software Engineering

Projects and Skills

Skills: C, C++, Java, PHP, SQL, Android, JavaScript, HTML/CSS, GNU/Linux

Sentiment Analysis: Predicting polarity (positive/negative) of textual data using maximum likelihood method

Graph Engine: Engine to store graph like data in relational schema; provides API to generate first-level entity association graphs

Location Based Customisation (Android app): Customises phone settings (WiFi, Bluetooth, Data) based on user's location; setting groups created by user

Connect Four AI Bot: Implemented Minimax algorithm in Java to play the game of Connect Four; the algorithm determines optimum move by 'looking' four moves ahead

War Robot: Arduino based, remote controlled (using Android app) robot with a spinning blade as primary weapon

Publications

"Real-time Detection of Seat Occupancy & Hogging" by Nguyen Huy Hoang Huy, Nakul Gulati, Lee Youngki and Rajesh Krishna Balan, **International Workshop on Internet of Things towards Applications, ACM Sensys 2015**

References

[Dr. Rajesh Krishna Balan](#), Director, LiveLabs-Urban Lifestyle Innovation Platform and Associate Professor of Information Systems, Singapore Management University

[Dr. Nirmal Kumar Sancheti](#), VP Engineering, AllGo Embedded Systems Pvt. Ltd. and (former) Faculty, NIIT University