# Don Kurian Dennis

Undergrad | Department of CSE, IIT Patna

## about

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## languages

Hindi/English
Malayalam

## programming

**primarily**
C, C++, QT
**experienced with**
Java, Python
Scala
HTML, CSS, JS
MySQL
Django
Hadoop
gdb, valgrind
git, svn
GNU/Linux
Bash, Perl

## Experience

**Since May '16** — **Singapore University of Technology and Design**
Research Intern, Center for Smart Systems (CS2)
Working on various projects such as - the development of a universal gateway for smart system protocols (BLE, ZigBee etc), configuring and deploying weather sensor apparatus across Singapore and creating a data analytics framework for it, setting up and configuring the lab data center, etc.

**May '15 - Jan '16** — **IIT Delhi: Large Graph Analysis using MapReduce**
Research Intern                                    Github:BigDataExperiments
Assembled and configured a cluster of Hadoop systems, translated classical RAM model algorithms to the Map-Reduce Model of distributed computing and analysed large social network connectivity graphs using the same.

**May - Aug, '15** — **Google Summer of Code '15**
Student Intern, Minnowboard                        GitHub:WITCH_On_A_Board
Created a core implementation of the decimal logic dekatron computer(Harwell Computer), for the 64 bit version of *Minnowboard Max (Intel Open Hardware)*. The project helped raise a **50,000 £** funding for TNMOC, UK.

**Nov, '14 - Jan, '15** — **Mixxx Project**
Open Source Contributor                            GitHub:mixxx
Mixxx Project - a free and open source DJing Platform. Worked specifically on the autoDJ engine - a completely autonomous DJying engine aimed at automating the music mixing process for cases where the DJ is away from his deck.

**Aug - Nov, '15** — **ToyOS**
Author                                             GitHub:tinyOS
Created an enhanced implementation of a PintOS - an x86 operating system written in C and Assembly. Implemented scheduling, thread synchronisation, virtual memory etc

## Education

**since 2013** — **Undergraduate studies**         Semester VI completed, CPI 8.3
Computer Science and Engineering, Indian Institute of Technology Patna

**2012** — **Higher Secondary Studies**            Percentage Marks: 93%
Kendriya Vidyalaya 2, Delhi Cantonment

**2010** — **Secondary Studies**                   CPI 9.6
Kendriya Vidyalaya 2, Delhi Cantonment

# Projects

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| Mar, '16 | **CHORD ACM-SIGCOMM** | GitHub:CHORD |

Implemented a top layer prototype of the Chord protocol for P2P network look-up. The protocol was outlined in the CHORD paper, ACM-SIGCOMM. Written in C++/QT.

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| Feb, '16 | **IRC model P2P Chat Client** | GutHub:P2P-IRC |

Wrote a C++/QT based chat GUI client supporting P2P chats and multi-member group chats. Completely decentralized except for authentication server.

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| Jan, '16 | **NS2 Type Discrete Event Network Simulator** | GutHub:TCP/IP-Sim |

A prototype model was created supporting the routing layer(network layer) and the TCP protocol with AIMD/CUBIC congestion control at the transport layer.

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| Jan, '16 | **Anwesha Capture The Flag '16** | GitHub:CaptureTheFlag-dep |

Rewrote the Anwesha '16 CTF framework in Django, developed it further and deployed it on our Anwesha '16 Apache servers within a weeks time.

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| March, '15 | **4 Bit CPU** | College Project |

Implemented a multi-cycle 4 Bit CPU from basic gates supporting a segmented display and a minimal instruction set in three weeks time.

# Additional Courses and Certifications

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| Jul, '15 | **Machine Learning** | Coursera |

An introductory course on machine learning by Andrew Ng, Stanford.

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| Sep, '14 | **Hardware Software Interface** | Coursera |

Architecture specifics of x86 systems, hardware software interactions, assembly level programing etc.

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| Jul, '14 | **Interactive Programming in Python** | Coursera |

A introduction to event driven programming using interactive programming in python.

# Positions of Importance

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| 2015-16 | **Coordinator, NJACK** | Computer Science Club |

Responsible for building a culture of tinkering and hacking on computer systems and technologies. Responsible for Linux division of NJACK.

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| 2015-16 | **Coordinator, Entrepreneurship Club** | Media and Public Relations |

Responsible for media and public outreach and exposure of entrepreneurship club, its activities and in-campus startups.