

# Don Kurian Dennis

Undergrad | Department of CSE, IIT Patna

## about

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## languages

bilingual Hindi/English  
Malayalam

## programming

primarily

C, C++

experienced with

QT, Java

Python, Scala

HTML, CSS, JS,

MySQL

Django, Hadoop

gdb, valgrind

git, svn

GNU/Linux

Bash

## Experience

May - July, '15

### IIIT Delhi : MapReduce

Research Intern

My research focused on adapting existing RAM model based algorithms to the MapReduce model of parallel distributed computing. I was responsible for devising efficient algorithms for SSSP, APSP and st-connectivity queries on very large social graphs. We were able to design an new approach to solving st connectivity whose efficiency is currently being tested.

May - Aug, '15

### Google Summer of Code 2015: MinnowBoard

Student Intern

Studied and developed a core software simulator for the 1950s Harwell Computer, based on the Minnowboard Max - an open hardware development board with the Intel Atom processor.

Nov, '14 - Jan, '15

### Mixxx Project

Developer

Helped develop and improve the Mixxx Project- a free and open source DJing Platform. Worked specifically on the autoDJ feature of mixxx, deployed with Mixxx 2.0, our first major release of this decade.

Mar, '15 - Dec '15

### Khad India Apparels

Backend and Systems Engineer

Worked with Khad India Apparels on their website and infrastructure launch. I worked as part of the technical team and was directly responsible for various projects such as website and portal deployment.

Since Mar, '15

### Witch-e Project

Contributor and Developer

Working as a core team member of the WITCH-E, an open source project which studies and replicates the engineering aspects of the WITCH (currently at The National Museum of Computing, Bletchley Park, UK) for using it as an educational tool to teach early computing methods to younger students. My software model helped TNMOC win a **50k pound funding**.

## Education

since 2013

### Undergraduate Studies

Currently in semester V

BTech, Department of CSE, IIT Patna

2012

### Higher Secondary Studies

Kendriya Vidyalaya 2, Delhi Cantt

2010

### Secondary Studies

Kendriya Vidyalaya 2, Delhi Cantt

## Projects

Aug - Nov, '15	<b>TinyOS</b> Created an enhanced implementation of a toyOS - a toy operating system- by implementing scheduling, dead lock removals, virtual memory etc. The project is targeted at the 80x86 architecture. The source code publicly hosted on github.	Personal Project
March, '15	<b>4 Bit CPU</b> Our team of 3 were able to implement a multi-cycle 4 Bit CPU implementation with basic segmented display and a regular integer instruction set in three weeks time. I was additionally responsible for coming up with the CPU design, subject to parts availability and other constraints.	College Project
Dec, '14 - Mar, '15	<b>HRAM</b> An interactive, secure and stable map based interface to facilitate hostel room allocations based on a preference list, by developing a 'fair' algorithm to mitigate concurrency conflicts. Deployed in beta phase.	College Project

## Additional Courses and Certifications

Jul, '15	<b>Machine Learning</b> An introductory course on machine learning by Andrew Ng, Stanford.	Coursera
Sep, '14	<b>Hardware Software Interface</b> Architecture specifics of x86 systems, hardware software interactions, assembly level programming etc.	Coursera
Jul, '14	<b>Interactive Programming in Python</b> A introduction to event driven programming using interactive programming in python.	Coursera

## Positions of Importance

2015	<b>Coordinator, Computer Science Club, IITp</b>
2015	<b>Coordinator, Media &amp; PR, Entrepreneurship Club, IITp</b>