# **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 - Dec, '15 IIIT Delhi : Large Graph Analysis using MapReduce
Research Associate

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 Interr

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 - Dec '15 Khad India Apparels

Backend and Systems Engineering Intern

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

**Secondary Studies** 

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**.

Kendriya Vidyalaya 2, Delhi Cantt

#### **Education**

2010

since 2013	Undergraduate Studies Currently in semester V	BTech, Department of CSE, IIT Patna
2012	Higher Secondary Studies	Kendriya Vidyalaya 2, Delhi Cantt

# **Projects**

Aug - Nov, '15 TinyOS Personal Project

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.

March, '15 4 Bit CPU

College Project

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 con-

strains.

Dec, '14 - Mar, '15 **HRAM** 

College Project

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.

### **Additional Courses and Certifications**

Jul, '15 Machine Learning Coursera

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

Sep, '14 Hardware Software Interface Coursera

Architecture specifics of x86 systems, hardware software interactions,

assembly level programing etc.

Jul, '14 Interactive Programming in Python

Coursera

A introduction to event driven programming using interactive program-

ming in python.

# **Positions of Importance**

2015 Coordinator, Computer Science Club, IITp

2015 Coordinator, Media & PR, Entrepreneurship Club, IITp