

Rithvik Patibandla

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Education

- Exp. 2019 **Indian Institute of Technology, Kanpur**, Bachelor of Technology, Electrical Engineering *Kanpur, India*
- 2015 **Sri Chaitanya Narayana Junior College**, Telangana State Board of Intermediate Education (Class 12 equiv.) *Hyderabad, India*
- 2013 **New Vision High School**, Secondary School Certificate (Class 10 equiv.) *Khammam, India*

Work Experience

Amazon

Hyderabad, India

SOFTWARE DEVELOPER INTERN | MANAGER: SHREEKANT MANDKE

May 2018 - July 2018

- Created a web service to handle the process of new client on-boarding and existing client access change requests.
- Making all the necessary configuration changes across multiple fleets is now a one-click process for the team members thus reducing load on the team during peak times when hundreds of requests have to be handled in a single day.
- Used technologies such as Horizonte (Amazon's adaptation of Spring MVC), G2S2 (Amazon's highly cache-able database) and DynamoDB.

Google Summer of Code 2018

Remote

THE LINUX FOUNDATION | MENTORS: AVEEK BASU (LEXMARK), DANNY BRENNAN (IBM), SMITH KENNEDY (HP)

May 2018 - Aug 2018

- Created ipddoclint, a program to check structural errors in common printing file formats such as CUPS and PWG rasters, JPEG and PDF.
- The program successfully identifies all mismatches between the file under check and corresponding file specification.
- Used libraries such as MuPDF and libjpeg-turbo. Used multi-threading to reduce the runtime for multi-page documents.

Google Summer of Code 2017

Remote

THE LINUX FOUNDATION | MENTOR: DONGXU LI (LIBRECAD)

May 2017 - Aug 2017

- Created Common Print Dialog, a modern, ergonomic, distribution-agnostic print dialog library for Linux.
- Application developers can use the library to add full print support to their applications.
- The library will be maintained by OpenPrinting and aims to be the unified solution for all of Linux thus providing a great user experience.

Research

Autonomous Underwater Vehicle - IIT Kanpur

Kanpur, India

STUDENT RESEARCHER | MENTOR: PROF. MANGAL KOTHARI

Dec 2015 - Present

- Serving as the Head of Electrical subsystem since Jan 2017.
- Designed, developed and maintained several electrical systems of the vehicle most notable of which include a signal processor for on-board hydrophones and a battery management system to monitor and protect on-board LiPo batteries.
- Stood in 2nd place out of 14 finalists in debut attempt at SAVE - 2017, NIOT, Chennai, India.

Abhyast Program - Boeing & IIT Kanpur

Kanpur, India

STUDENT RESEARCHER | MENTOR: PROF. SHANTANU BHATTACHARYA

Feb 2017 - Apr 2018

- The project aims to build an autonomous dual vehicle system consisting of a quad-copter and a ground vehicle to survey and perform tasks in an area of interest.
- Worked on integrating data from LiDAR and Stereo cameras to generate a 3D map of the area in interest.
- Use the aforesaid map to generate a path for the ground vehicle to follow for navigation and interaction with its environment.

Honors & Awards

- 2015 **All India Rank 667**, out of 150,000 students, Joint Entrance Examination (JEE) Advanced *India*
- 2015 **All India Rank 1618**, out of 1.3 million students, Joint Entrance Examination (JEE) Mains *India*
- 2014 **Awarded Fellowship**, < 2% acceptance rate, Kishore Vaigyanik Protsahan Yojana (KVPY) *IISc, Bangalore, IN*
- 2013 **Awarded Scholarship**, < 0.2% acceptance rate, National Talent Search Exam (NTSE) *NCERT, India*

Others

Languages Python, C, C++, Java

Skills Software Development, Qt App Development, Full Stack Web Development, Robotics

Coursework Data Structures and Algorithms, Cybersecurity

Open Source OpenPrinting, Avahi, Linux Kernel

Personal Projects Operating System (myOS), Single Board Computer (SBC)