

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

SOFTWARE DEVELOPER INTERN MANAGER: SHREEKANT MANDKE	Hyderabad, India
	May 2018 - July 2018
<ul style="list-style-type: none">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 cacheable database) and DynamoDB.	

Google Summer of Code 2018

THE LINUX FOUNDATION MENTORS: AVEEK BASU (LEXMARK), DANNY BRENNAN (IBM), SMITH KENNEDY (HP)	Remote
	May 2018 - Aug 2018
<ul style="list-style-type: none">Created ippdclint, 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

THE LINUX FOUNDATION MENTOR: DONGXU LI (LIBRECAD)	Remote
	May 2017 - Aug 2017
<ul style="list-style-type: none">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
<ul style="list-style-type: none">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

STUDENT RESEARCHER MENTOR: PROF. SHANTANU BHATTACHARYA	Kanpur, India
	Feb 2017 - Apr 2018
<ul style="list-style-type: none">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

Personal Projects

SBC	A custom-made Single Board Computer capable of running Linux, based on Texas Instruments' AM3358 ARM Cortex processor.
myOS	A custom-made x86 kernel that will be ported to ARM to run on aforesaid single board computer.
piTorrent	A BitTorrent client with CLI and GUI made in Python.
musync	A web extension, mobile app combo to sync my YouTube playlist to my phone's Music app.

Others

Languages	Python, C, C++, Java
Open Source	OpenPrinting, Avahi, Linux Kernel