

# Rithvik Patibandla

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## Education

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|-----------|--|------------------|
| Exp. 2019 | <b>Indian Institute of Technology, Kanpur</b> , Bachelor of Technology, Electrical Engineering                   | Kanpur, India    |
| 2015      | <b>Sri Chaitanya Narayana Junior College</b> , Telangana State Board of Intermediate Education (Class 12 equiv.) | Hyderabad, India |
| 2013      | <b>New Vision High School</b> , 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"><li>Created a web service to handle the process of new client on-boarding and existing client access change requests.</li><li>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.</li><li>Used technologies such as Horizonte (Amazon's adaptation of Spring MVC), G2S2 (Amazon's highly cacheable database) and DynamoDB.</li></ul> |                      |

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

### Google Summer of Code 2017

|   |                     |
|---|---------------------|
| THE LINUX FOUNDATION   MENTOR: DONGXU LI (LIBRECAD)   | Remote              |
|   | May 2017 - Aug 2017 |
| <ul style="list-style-type: none"><li>Created Common Print Dialog, a modern, ergonomic, distribution-agnostic print dialog library for Linux.</li><li>Application developers can use the library to add full print support to their applications.</li><li>The library will be maintained by OpenPrinting and aims to be the unified solution for all of Linux thus providing a great user experience.</li></ul> |                     |

## Research

### Autonomous Underwater Vehicle - IIT Kanpur

|   |                    |
|---|--------------------|
| STUDENT RESEARCHER   MENTOR: PROF. MANGAL KOTHARI   | Kanpur, India      |
|   | Dec 2015 - Present |
| <ul style="list-style-type: none"><li>Serving as the Head of Electrical subsystem since Jan 2017.</li><li>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.</li><li>Stood in 2<sup>nd</sup> place out of 14 finalists in debut attempt at SAVe - 2017, NIOT, Chennai, India.</li></ul> |                    |

### Abhyast Program - Boeing & IIT Kanpur

|  |                     |
|--|---------------------|
| STUDENT RESEARCHER   MENTOR: PROF. SHANTANU BHATTACHARYA   | Kanpur, India       |
|  | Feb 2017 - Apr 2018 |
| <ul style="list-style-type: none"><li>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.</li><li>Worked on integrating data from LiDAR and Stereo cameras to generate a 3D map of the area in interest.</li><li>Use the aforesaid map to generate a path for the ground vehicle to follow for navigation and interaction with its environment.</li></ul> |                     |

## Honors & Awards

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

## Others

|                          |  |
|--------------------------|--|
| <b>Languages</b>         | Python, C, C++, Java   |
| <b>Skills</b>            | Software Development, Qt App Development, Full Stack Web Development, Robotics |
| <b>Coursework</b>        | Data Structures and Algorithms, Cybersecurity                                  |
| <b>Open Source</b>       | OpenPrinting, Avahi, Linux Kernel  |
| <b>Personal Projects</b> | Operating System (myOS), Single Board Computer (SBC)                           |