

# Pranav P

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## EDUCATION

### COLLEGE OF ENGINEERING TRIVANDRUM

MCA  
Jun 2024 | Trivandrum, Kerala

### CMS COLLEGE KOTTAYAM

BSc MATHEMATICS  
Apr 2022 | Kottayam, Kerala  
Cum. GPA: 9.06 / 10.0  
Major GPA: 9.41 / 10.0

### HOLY FAMILY HSS CHERTHALA

Mar 2019 | Cherthala, Kerala  
Score: 98.5%

## LINKS

Github:// [pranavkaruvally](#)  
LinkedIn:// [pranav-p-76b901183](#)

## SKILLS

### PROGRAMMING

Over 5000 lines:  
• Python • C++ • Dart  
Over 1000 lines:  
• C • Shell • Javascript  
• HTML • CSS •  $\LaTeX$   
• Rust

### FRAMEWORKS AND TECHNOLOGY

• Linux • Flutter • Git  
• Django • React • MySQL

## COURSEWORK

### GRADUATE

Data Structures  
Software Engineering  
Computer Networks  
Database Management Systems  
Functional Programming

### UNDERGRADUATE

Discrete Mathematics  
Linear Algebra  
Abstract Algebra  
Graph Theory  
Calculus  
Statistics

## ROLES

• Technical coordinator  
(Association of Students of Computer Applications)

## EXPERIENCE

### FOSSEE, IIT BOMBAY | SEMESTER LONG INTERN

Feb 2023 – Jul 2023 | IIT Bombay, Mumbai

- Added four new features into the eSim software(an open source EDA similar to LTspice) developed by the FOSSEE eSim team at IIT Bombay under the mentorship of project assistants Sumanto Kar and Rahul Pakniker.
- Implemented multithreading using slots and signals to prevent the PyQt event loop from sleeping allowing two or more tasks to be done during simulation simultaneously.

## PROJECT

### PICZA - SOCIAL MEDIA APPLICATION | FREELANCE PROJECT

Flutter | Hive | Django | Redis | Celery | PostgreSQL

- As a team of two, co-created a social media platform for college during pandemic to improve connectivity among students.
- Incorporated features such as a low latency chat system powered by **websockets**, stories and media posts. Wrote the mobile application using Flutter, a cross-platform framework and the backend using Django.

### ANALYSIS OF PAGERANK ALGORITHM | ACADEMIC PROJECT

Django | NumPy | Beautiful Soup | Scrapy

- Modeled a sample of the Internet using Django and devised a search engine that utilizes the PageRank algorithm with a team of four.
- Examined how graph theory and linear algebra played an important role in the invention of the PageRank Algorithm.

### FLITWICK - MUSIC PLAYER

C++ | FLTK | SDL

Currently developing a retro-style low-latency music player in C++. The UI is built using FLTK and the audio processing is done via the SDL library.

### GUI FOR VERILATOR

PyQt | cx-Freeze | Bash

Developed a GUI for the command line tool called Verilator using PyQt and built a Linux installer using cxfreeze and Bash.

### HABIT TRACKER

Flutter | Hive

Devised a simple habit tracker in Flutter having storage capabilities built around the NoSQL database Hive

### SCREENLIGHTUP

Python | OpenCV

Deployed a Python script with the help of OpenCV which takes a snapshot using a webcam and analyses the photograph to adjust the screen's brightness in accordance with the surroundings.

## AWARDS

2023	2 <sup>nd</sup>
2022	2 <sup>nd</sup> Rank
2019	1 <sup>st</sup>
2019	1 <sup>st</sup>
2019	Top 1% in state board

ESPOIR: All Kerala Inter-Collegiate maths quiz
LBS MCA Entrance examination
All Kerala Inter-Collegiate maths quiz (K.E Mannanam)
Inter-Collegiate maths quiz (Alphonsa College)
Inspire SHE-Scholarship