# Parimal Prasoon

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## **EDUCATION**

#### VIT BHOPAL UNIVERSITY

B.Tech in Computer Science and Engineering

Expected May 2021

## WORK EXPERIENCE

## **GOHIRED** | TECHNICAL CONTENT CREATOR

Oct 2019 – Jan 2020 | Remote Internship

• Created articles and tutorials on algorithmic questions asked in technical interviews.

#### VIT BHOPAL CODECHEF CHAPTER | PROBLEM SETTER

Oct 2018

• Organized programming contest Co-Decode for the college Codechef chapter.

## LINKS

GitHub:// Parimal7 LinkedIn:// parimal7 Codechef:// parimal7 HackerEarth:// @parimal\_7 HackerRank:// pairmal7

## COURSEWORK

- Data Structures and Algorithms
- Operating Systems
- Artificial Intelligence
- Computer Networks
- Database Management Systems
- Design and Analysis of Algorithms
- Software Defined Networks

## SKILLS AND INTERESTS

#### **Programming Languages**

C • C++ • Python • Java • JavaScript

Vim • CMake • LATEX • Git • Heroku

Frameworks

Diango • SFML

Databases

MySql • SQLite

## TECHNICAL PROJECTS

#### RAW IMAGE PROCESSOR | DIGITAL IMAGE PROCESSING | GITHUB LINK

- Built a **C++** application which converts RAW file format generated by digital cameras into a bitmap file.
- Implemented linear interpolation for debayering the RGB image.
- Added dynamic linking to reduce executable file size.
- Created a **CMake** script to build the full project.

#### CHESS BOT | ARTIFICIAL INTELLIGENCE | GITHUB LINK

- Built a chess playing bot in **JavaScript**. Used libraries chess.js for move generation and chessboard.js for board visualization.
- Implemented mini-max algorithm for decision making, searching up to a depth level of three.
- Optimized the algorithm using alpha-beta pruning.

#### PORTFOLIO WEBSITE | WEB DEVELOPMENT | WEBSITE LINK

- Created a portfolio / blog web application from scratch using the **Django** framework.
- Integrated markdown editor for better text editing and rendering through Django admin.
- Deployed the site on **Heroku**.

#### **SQLITE-CLONE** | DATABASES | GITHUB LINK

- Programmed a database from scratch in **C** programming language.
- Added persistence to disk and cursor abstraction for tracking rows.
- Implemented B+ tree from scratch for efficient insertion and searching.

#### PATHFINDING VISUALIZER | ALGORITHMS | GITHUB LINK

- Created a desktop application to find shortest path from source to destination in a given map.
- Implemented Dijktra's and A\* algorithms from scratch for pathfinding using C++.
- Built the graphical user interface using **SFML**.

#### WEB SERVER | COMPUTER NETWORKS | GITHUB LINK

- Implemented a simple web server in **Python** that can handle concurrent connection requests.
- Added Python Web Server Gateway Interface support.
- Solved the problem of zombie processes by implementing a signal handler and wait system call.

## PROGRAMMING COMPETITIONS

2020 19<sup>th</sup>/630 Data Structures and Algorithms, HackerEarth 2019 543<sup>th</sup>/20,000+ Codechef August Long Challenge, 2019 2019 223<sup>th</sup>/6,000+ Codechef May Long Challenge, 2019