

# Vaibhav Agarwal

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## EDUCATION

### Indian Institute of Technology Delhi

Biochemical Engineering and Biotechnology, Grade: 7.515/10

Delhi, India

Nov 2020 - June 2024

## TECHNICAL SKILLS

**Programming Languages:** Python, C++, Java, Javascript, HTML/CSS

**Libraries and Tools:** Django, ReactJS, PostgreSQL, MongoDB, Git, Docker

**Developer Tools:** Amazon Web Services, Google Cloud Platform, Postman, pgAdmin4, VS Code, Git, Microsoft Azure

## WORK EXPERIENCE

### Backend Developer

Ripik.ai, Delhi, India

Feb 2023 - Present

- Designed and developed scalable process optimisers for Ultratech, DCM Shriram, and Wonder Cement leading to cost savings
- Developed a real-time WhatsApp alert system to monitor Kiln temperatures, generated daily and shift-wise plant email report
- Integrated ML model to DCS (Distributed Control System) optimising coal rate to Kiln via Arduino Uno and ioLogik E1241
- Utilised Django and Django Rest Framework to create the backend and RESTful API's, deployed on GCP App Engine
- Collaborated with the core team to design the UI/UX elements and frontend using ReactJS, deployed on AWS Amplify
- Password less OTP verification, email sent via SMTP server, created reusable library for seamless integration across many apps

### Software Developer Engineer

Ethan.ai, Bangalore, India

April 2022 - July 2022

- Created a Single Sign On (SSO) feature to enable logging in across various company servers, by using a ethan token
- Collaborated with the Co-Founder to create RESTful API's using AWS RDS database, established connection using psycopg2
- Developed a Login server using ssh, nginx and AWS EC2 instance and enabled SSL certification using certbot
- Established user unique database on server level to secure data and created user groups having individual permissions

## PROJECTS

- Intelligent Strategy for Othello**, Accomplished intelligent game-playing agent for Othello using k-step look-ahead and MiniMax algorithm with memory optimisations in Java under Prof. Huzur Saran
- Optimal Moves in Snake and Ladder Game**, Designed the Board and Implemented various functions like FindBestNewSnake, OptimalMoves using Dijkstra's Algorithm in Java under Prof. Keerti Choudhary
- Django Blog**, Developed a Blogging service implementing CRUD functionalities in Django for posting, updating, and deleting posts and Added Authentication system using Django session middleware and authentication middleware for registered users

## POSITIONS OF RESPONSIBILITY

### Technical Secretary

NSS - National Service Scheme, IIT Delhi

May, 2022 - June, 2023

- Spearheaded website revamp, optimizing UI/UX design for seamless navigation and developed application portals
- Took on a leadership role and various technical sessions for the team and developed the Kaizen website 3000+ attendees

### Technical Coordinator

AAIP - Alumni Affairs and International Programs, IIT Delhi

May, 2022 - June, 2023

- Organised interviews and constructed IP technical team, maintained the official IP website adding new UI/UX elements
- Led a cross-functional team of 5 members in developing an application portal for professors and students for foreign research

### Tryst Executive

CAIC - Co-curricular and Academic Interaction Council, IIT Delhi

July, 2021 - May, 2022

- Designed and deployed the robust backend for TRYST(annual technical fest) 7000+ attendees using Django and AWS
- User and event registration using RESTful API's, authentication using JWT tokens stored in cookies, refreshed regularly

### Website Editor

BSP - Board for Student Publications, IIT Delhi

July, 2021 - May, 2022

- Designed and Created the Literati(annual literary fest) 1000+ attendees website, increasing engagement
- Awarded the website editor for the month of October, interviewed renowned economist and scholar Prof. Reetika Khera