# **Prakhar Mittal**

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## **EDUCATION**

# Georgia Institute of Technology, Atlanta, GA

**GPA: 4.00** 

B.S. in Computer Science - Devices & Intelligence

Aug 2020 - Dec 2023

Courses: Data Structures & Algorithms, Object Oriented Programming, Data Visualization & Analysis, Design Patterns

## **EXPERIENCE**

# **Drone Delivery Network**

Atlanta, GA

Undergraduate Researcher - VIP Program

Aug 2021 - Present

• Working with Kotlin & Google Maps SDK to build an app that displays the live location and ETA of delivery drones.

# Track My Change

Berkeley, CA

Web Development Lead

May 2021 - Present

- Designed customized widgets to quantify and convey the impact of social organizations in the US and Nepal.
- Monitored user interaction using JavaScript: observed significant increase in donations and volunteer enrollment.

**RoboJackets** 

Atlanta, GA

Software Developer

Sep 2020 - Present

- Implemented multi-scale template matching for an autonomous RC-car to detect road signs with 98.3% accuracy.
- Used a multi-threading approach to speed up the process. Written in C++ & OpenCV. Tested using ROS bag files.

## **LEADERSHIP**

# Node Computing Club, Robotics & Web Dev Leader

Feb 2018 - Feb 2020

- Developed and maintained websites for several clubs and events, primarily used Django with Heroku/Netlify.
- Organized hackathons with 800+ participants from North India, and introduced a new autonomous robotics event.

# AC/DC Robotics, Software Lead

Nov 2016 - Jan 2018

- Spearheaded the design of a semi-autonomous robot capable of holonomic driving, and launching projectiles.
- Achieved precision control of drivetrain based on feedback from gyroscope, accelerometer, and motor encoders.
- Created a Java app in Android Studio for detecting colors from phone images, and IR-based distance sensing.

# High Voltage Robotics, Co-Founder & Captain

May 2015 - Nov 2016

- Enabled robot to observe surroundings, detect, and sort objects, using PID control on ultrasonic & light sensors.
- International Runners-up at World Robot Olympiad 2016 (55+ countries).

#### **PROJECTS**

#### **Juvenile Crime in India Visualization**

- Analyzed government data on juvenile crime in India from 2001-10. Data transformed in Pandas & NumPy.
- Used k-means clustering in sk-learn to classify states by performance, and visualized trends in Seaborn & Plotly.

# **Odyssey Cryptic Hunt**

- Designed a platform to host India's first quest-based cryptic hunt with 250+ participants and 10,000+ answers.
- Crafted the storylines and 20 elaborate puzzles employing interactive UI elements, steganography, and ciphers.

## IdeateFX: Startup Ideation Tool

• Devised a JavaFX application that accelerates brainstorming and managing startup ideas based on feasibility.

#### **HONORS**

**All India Secondary School Examination:** Ranked 1<sup>st</sup> out of ~1.6 million students & received multiple scholarships. **International Olympiad in Linguistics:** Ranked in top-25 in India & qualified to attend National Training Camp.

## **SKILLS**

**Software:** Java, Python, C, C++, HTML, (S)CSS, JavaScript, SQL, OpenCV, NumPy, Pandas, Seaborn, Plotly, sk-learn **Tools:** ROS, Arduino, Linux, Git, Docker, JetBrains, Jupyter, Slack, ClickUp, Trello, Hosting, SEO, Adobe XD