

Gautam Bulusu

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Education

University of Maryland, College Park

Aug 2025 – May 2027

MS in Applied Machine Learning

- GPA: 4.0 / 4.0

KJ Somaiya College of Engineering, Mumbai

May 2024

B.Tech in Information Technology, affiliated to Somaiya Vidyavihar University

- CGPA: 8.54 / 10.00

Dnyan Ganga Educational Trust's Junior College of Science, Mumbai

July 2020

Grade XII – Maharashtra State Board of Secondary and Higher Secondary Education

- Percentage: 82.71%

Smt. Sulochanadevi Singhania School, Mumbai

May 2018

Grade X – Indian Certificate of Secondary Education (ICSE)

- Percentage: 96.2%

Work Experience

Reliance Brands Limited, Mumbai

Aug 2024 – Mar 2025

Data Analyst and Software Developer

- Developed an end-to-end web application to replace an Excel-based financial term analysis system for 71 luxury brands. The new system reduced processing time from several weeks to a few days.
- Automated a Python script for login, navigation, filtering, and downloading Tableau reports — saving 15 minutes daily for 25 employees.

Internships

Jio Institute, Navi Mumbai

Jun 2023 – Sep 2023

Computer Vision Intern

- Developed vertebrae segmentation solutions for 374 4D CT scans from the VerSe 2019–2020 Grand Challenge.
- Assessed scoliosis severity on segmented masks using traditional computer vision techniques.

Technical Experience

Team KJSCE Robocon, KJ Somaiya College of Engineering, Mumbai

Aug 2022 – Jun 2023

Vice-Captain and Software Lead

- Conducted training sessions for 40–50 juniors on Data Structures, Embedded Programming, and Image Processing.
- Explored MATLAB, Robot Operating System (ROS), and deep learning for robotic automation.
- Integrated an Xbox One Kinect sensor on a Jetson Nano for arena mapping and automating robot-2 movements.

Team KJSCE Robocon, KJ Somaiya College of Engineering, Mumbai

Sept 2021 – Aug 2022

Coding Team Member

- Developed code blocks enabling communication between microcontrollers and motor drivers on the robots.
- Implemented Dijkstra's algorithm for robot-2's path planning using tf02 LiDAR, reducing round time by 3 seconds.
- Fine-tuned a YOLOv5 model with a custom 1200-image dataset for blue ball detection; deployed it on a Raspberry Pi 3B+ for real-time targeting on robot-1.
- Contributed to the team achieving its highest-ever All-India rank — 6th place at ABU Robocon (IIT Delhi).

Academic Projects

Mangrove Assessment using Satellite Imaging

Oct 2023 – Apr 2024

KJ Somaiya College of Engineering, Mumbai, India

- Assessed mangrove coverage in Maharashtra (2002–2022) using remote sensing and machine learning; noted 1651.94 hectares of loss.
- Developed spatial simulation models in Python and Google Earth Engine for restoration feasibility.
- Determined that Random Forest outperformed SVM by 3.06% accuracy.

Ocular Diseases Detection

Jan 2023 – Apr 2023

KJ Somaiya College of Engineering, Mumbai, India

- Developed deep learning models using VGG16 and MobileNetV2 with transfer learning to classify glaucoma, cataract, and diabetic retinopathy.
- Designed image preprocessing and augmentation pipelines.
- Achieved F1 scores: 0.97 (Normal), 0.69 (Cataract), 0.90 (Glaucoma), 0.88 (Diabetic).

Technical Skills

- **Programming Languages:** Python, C, C++, SQL, R, Java, JavaScript, HTML/CSS, MATLAB, PHP
- **Tools:** GitHub, Google Cloud Platform, VS Code, PyCharm, Eclipse, Jupyter Notebooks, Android Studio, MicroChip Studio, Power BI, Tableau, CISCO Packet Tracer, MS Office

Certifications

DeepLearning.AI

November 2022, May 2023

Introduction to TensorFlow for Artificial Intelligence Machine Learning and Deep Learning; Neural Networks and Deep Learning

Coursera

April 2023

Deep Learning and Reinforcement Learning

Coursera

August 2022

Databases and SQL for Data Science with Python

IBM Skills Network

July 2022

Python for Data Science AI and Development

University of Illinois Urbana-Champaign

January 2023

Object-Oriented Data Structures in C++, Unordered Data Structures, Ordered Data Structures

Imperial College London

January 2023

Mathematics for Machine Learning: Linear Algebra, Multivariate, Calculus, PCA

Google

September 2022

Crash Course on Python

MathWorks

September 2022

Introduction to Image Processing

MathWorks

August 2022

MATLAB Onramp

Community Service / Social Work

- As a passionate robotics enthusiast, I volunteered at World Robot Olympiad (WRO West India Regional Championship) 2022 held in Mumbai in July 2022 where I was tasked with evaluating the performance of participants' robots according to the competition's rigorous standards.
- I led the Team KJSCE ROBOCON Organized a 2 day robotics workshop in November 2022 for 80 engineering students at KJSCE Mumbai, teaching them robotics basics and guiding them to build a soccer-playing robot from scratch. They were able to control the robot using their phones.