

Kushagra Agarwal

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ACADEMIC QUALIFICATION

Bharati Vidyapeeth University College of Engineering, Pune

July 2018 – July 2022

B. Tech. in Computer Engineering

CGPA - 9.58/10.00

PROFESSIONAL EXPERIENCES

Tata Consultancy Services, New Delhi

July 2022 – present

Research Engineer (Robotics Innovations Lab)

- Building Computer Vision pipelines, 3D modelling, Synthetic data generation, R-CNN, and 6D pose estimation
- Tools and Technologies - ROS 2, Python, CUDA, OpenCV, MeshLab, Open3D, Blender, Keras, TensorFlow

DistrictD, New Delhi

March 2021 – June 2021

Software Development Intern

- Coded automation scripts, updated modules, and improved UI and database performance
- Tools and Technologies – Node.js, React.js, Express.js, PostgreSQL, Sequelize, JIRA, GitLab, VS Code

RESEARCH PUBLICATIONS

- Published a paper in the *International Journal of Research and Analytical Reviews* on a novel medical chatbot utilizing BCCR Repertory for assisting Homeopathic practitioners in prescribing medicinal remedies.

ACADEMIC PROJECTS

HealthyHeart — Heart Disease Prediction System

HealthyHeart uses SVM and GridSearchCV to forecast the possibility of heart disease based on a set of parameters.

Flicker — Vehicle Detection System

Used the YOLO v3 darknet framework to detect vehicles and draw bounding boxes on them while displaying the confidence score in the input video captured via CCTV cameras.

Let's Walk — Personalized Fitness App

Let's Walk is an Android application that uses the phone's gyroscope sensor to track your daily steps, distance travelled, and calories burned. It uses the JobScheduler Activity to save battery while operating in the background.

TECHNICAL SKILLS

Technologies: Artificial Intelligence, Machine Learning, Computer Vision, Data Analysis and Cloud Computing

Languages: C, C++, Java, Python, SQL, MongoDB, HTML, JavaScript and Node.js

Software / Tools: TensorFlow, Scikit-learn, OpenCV, MATLAB, Jupyter Notebook, Tableau, Flutter, Git and Linux

CERTIFICATIONS

- Microsoft Certified: Azure Fundamentals
- Algorithmic Toolbox – University of California San Diego (Coursera)
- SQL for Data Science – University of California, Davis (Coursera)
- Data Analysis with Python - IBM Skills Network
- Machine Learning with Python – CognitiveClass.ai
- Advanced Computer Vision with TensorFlow – DeepLearning.AI

EXTRA-CURRICULAR

- Won the 2021 College Hackathon for developing a prototype of a budget management recommendation system
- Technical team leader at my College's Google Developer Student Club (2020-2021)
- Volunteered at National Security Service Club in my College, where I promoted the importance of education and hygiene in rural areas, participated in cleaning drives and spent time teaching underprivileged children
- Served as a Head boy and Discipline In-charge during school days
- Personal hobbies include playing table tennis, learning French, and working out