Kapil Sunil Bhatia

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EDUCATION

Bachelor of Technology in Computer Engineering

K. J. Somaiya Institute of Technology • Sion, Mumbai • Aggregate CGPI: 9.2 (All 8 Semesters)   04/2025

Higher Secondary Certificate. (HSC)

Hansraj Morarji Public School and Junior College • Andheri, Mumbai • Percentage: 93.33%   04/2021

Secondary School Certificate (SSC)

Bhavans A.H. Wadia High School • Andheri, Mumbai • Percentage: 87.80%   06/2019

INTERNSHIP EXPERIENCE

Mastek Ltd.   04/2025

Interned at Mastek Ltd.'s Innovation Lab-aaS, contributing to AI-driven solutions including fraud detection, intelligent chatbots, and document automation using Python, Flask, Azure OpenAI, and FAISS.

1stop.ai   05/2023

Actively participated in the development of the "Laravel Booking Management System" project, using backend web application development with API integration.

TECHNICAL SKILLS

Azure OpenAI, Bootstrap, C, Canva, CSS, Figma, Flutter, GIS, HTML, Java, JavaScript, Java Swing, Laravel, MS Office, MySQL, PHP, PowerBI, Python.

CERTIFICATIONS

Cloud Foundation Course	**AI Hackathon Oracle Service Line**
AWS Academy	Mastek
Python and Java Spoken Tutorial	**Complete Web Development Bootcamp**
IIT Bombay	Udemy (Angela Yu)

PROJECTS

Virtual Lab for Operating Systems

K. J. Somaiya Institute of Technology

Developed an interactive web-based virtual lab to help students understand OS concepts through simulations, quizzes, flowcharts, and code execution. Included email-based login/signup, a discussion forum, and feedback system. Benefited **300+** students across the institute.

Link: vlabcomp.kjsieit.in

Stakeholders Feedback Analysis Portal

K. J. Somaiya Institute of Technology

Designed and deployed a web portal for collecting and analyzing feedback from students, faculty, alumni, and other stakeholders. Integrated with Power BI to visualize **900+** responses using charts and dashboards; used in NBA and NAAC accreditation reports.

Link: feedbackportal.kjsieit.in/new

Student Achievement & OCR Portal

K. J. Somaiya Institute of Technology

Created a portal to streamline certificate submission by students and automate data entry using Optical Character Recognition (OCR). Simplified administration and tracking of student achievements by extracting certificate data directly into structured formats.

IoT-based Water Tank Monitoring System

Mastek Deep Blue Season 8 – **Finalist** | Aavishkar 2023–24

Built an IoT solution using Arduino UNO WiFi Rev 2 to monitor water parameters (pH, turbidity, temperature, conductivity, and water level). Enabled real-time alerts via SMS to ensure cleanliness and maintenance of overhead tanks. Addressed a civic challenge provided by Mastek.

Housing Society Management System (HSMS)

Client: Moraj Residency, Navi Mumbai

Developed an all-in-one web platform to manage resident records, maintenance collection (via payment gateway), complaints, visitor logs, and rent/renovation applications. Designed for **800+** residents to enhance society operations and transparency.

Link: morajresidency.co.in

LULC Impact on Air Quality in Mumbai

Research Project | GIS + AI Integration

Explored the impact of Land Use Land Cover (LULC) on air quality using hybrid deep learning models on satellite data. Employed SHAP and LIME for interpretability, and used GPR to estimate disease risk from pollutant exposure. Forecasted AQI trends from **2017 to 2035**, highlighting urbanization effects.

COPYRIGHTS

Smart Optical Character Recognition System for Certificate Management   10/2024

Copyright Diary Number: 24397/2024-CO/SW

Software of CivicSynergy Streamlining Housing Society Management   06/2024

Copyright Diary Number: 9135/2024-CO/SW

User Manual of Virtual Lab of Operating Systems   03/2024

Copyright Diary Number: 24284/2023-CO/L

User Manual of KJSIT's Stakeholders Feedback Analysis Portal   02/2024

Copyright Diary Number: 356/2024-CO/L

PUBLICATIONS

Enhancing accessibility with long short-term memory-based sign language detection systems   04/2025

Published in Scopus-indexed IAES International Journal of Artificial Intelligence (IJ-AI) **Click here**

Virtual Simulations Tool for Operating Systems: Advancing E-Learning in Computing Education   11/2024

Publication in Scopus-indexed Journal of Information Technology Education: Innovations in Practice (JITE:IIP) **Click here**

Data Dynamics in Focus: Stakeholders Feedback Analysis and Interpretation   05/2024

Publication in Scopus-indexed International Conference on Emerging Innovations and Advanced Computing (INNOCOMP 2024) **Click here.**

Empowering Communities: Smart Technologies for Housing Society Governance   05/2024

Published in UGC CARE recognized South India Journal of Social Sciences (in Print Mode) **Click here.**

AWARDS & ACCOLADES

Special Prize Awardee for developing CivicSynergy Streamlining Housing Society Management System in INTECH 2K24   02/2024

Institution of Engineering and Technology (IET) Mumbai Local Network and K. J. Somaiya Institute of Technology

Student Champion of the Year   12/2023

Institution of Engineering and Technology (IET)

Letter of Appreciation for developing websites Virtual Lab of Operating Systems; KJSIT's Stakeholders Feedback Analysis Portal; CivicSynergy: Streamlining Housing Society Management System; and conducting the session titled "From Concept to Deployment: Building Scalable Applications" for second-year engineering students   10/2023

K. J. Somaiya Institute of Technology, Sion, Mumbai

Topped the class XII in my college – Board Examination   06/2021

Hansraj Morarji Public School and Junior College

VOLUNTEERING & LEADERSHIP

Institution of Engineering and Technology (IET) & K. J. Somaiya Institute of Technology   06/2024

Vice Chairperson • Mumbai