## NIKHITHA KONNIKKARA CHANDRAN

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## **SUMMARY**

As a dynamic and goal-driven B.Tech Computer Science student, I have a strong foundation in Python, Web and App Development, SQL, AI technologies and Cybersecurity. Through academic projects, internships, and hackathons, I've demonstrated the ability to solve real-world problems and build impactful tech solutions. I'm a collaborative team player with a passion for innovation, complemented by skills in graphic design, image processing and effective communication. I aim to contribute to cutting-edge software development projects and make a meaningful impact in the tech industry as I begin my professional journey

## PROJECT EXPERIENCE

## **Gesture-Driven Virtual Game Controller**

May 2025

https://github.com/NikhithaKChandran/Hand Gesture Recognition.git

- Developed a computer vision-based virtual game controller using Python, OpenCV, and MediaPipe, enabling real-time hand gesture recognition to interact with and control popular games such as Subway Surfers, Temple Run, and Dino Run.
- The system simulates keyboard inputs based on hand positions, offering an innovative, touch-free gaming experience.

## **Gesture-Driven Virtual Steering Wheel Controller**

May 2025

https://github.com/NikhithaKChandran/Virtual-Steering-Wheel-Controller.git

- Developed a computer vision-based virtual game controller using Python, OpenCV, and MediaPipe that enables real-time hand gesture recognition for controlling car racing games.
- The system interprets both single-hand and dual-hand steering wheel gestures to simulate driving actions, providing an immersive and intuitive gameplay experience.
- This project showcases the application of AI and gesture tracking in human-computer interaction and touchless gaming environments.

## **Responsive Weather Forecast Web App**

June 2025

https://nikhithakchandran.github.io/WeatherWeb/

https://github.com/NikhithaKChandran/WeatherWeb.git

- Developed a responsive weather application using ReactJS and the Meteosource Weather API to provide accurate hourly weather updates and 21-day weather forecasts for user-specified locations.
- Implemented dynamic background transitions that visually adapt based on real-time weather conditions(e.g., rain, clear sky, snow), enhancing the user experience.
- The app showcases clean UI design, efficient API handling, and real-world data integration.

#### **Personal Portfolio Website**

Aug 2024 - Nov 2024

https://nikhithakchandran.netlify.app

https://github.com/NikhithaKChandran/My Portfolio.git

- Designed and developed a responsive personal portfolio website using HTML, CSS, and JavaScript to showcase academic achievements, technical skills, projects, and certifications.
- The website features smooth navigation, clean layout, and interactive elements to provide a professional online presence.
- It would serve as a central platform for recruiters and collaborators to explore my work and contact me directly.

## **EDUCATION**

# Bachelor of Technology in Computer Science and Engineering (Hons) Rajagiri School of Engineering and Technology Nov 2022 - May 2026

CGPA: 9.38

Key Courses: Data Structures and Algorithms, Object Oriented Programming Using Java, Database Management Systems, Operating Systems, Formal Languages and Automata Theory, Computer Networks, System Software, Object Oriented Programming using Python, Algorithm Analysis and Design, Graph Theory, Linear Algebra, Vectors and Calculus.

## Relevant Projects:

# NAVEYE: Navigation Mobile App for Visually Impaired https://github.com/NandanaAnukumar/NavEye-Blind-Navigation-Aid Jan 2025 - April 2025

- Developed a feature-rich Android application aimed at enhancing navigation and safety for visually impaired users.
- The app integrates camera-based obstacle detection using Gemini Vision, provides real-time voice alerts via the Android Speech Recognition API, and enables outdoor navigation through the OpenRoute Service API.
- Built the UI using Jetpack Compose, ensuring a smooth, accessible user interface.
- The application was implemented in Kotlin and designed to support hands-free interaction for improved accessibility and independence.
- The project reflects a strong understanding of assistive technology, combining Al and mobile development to address real-world accessibility challenges.

## **Car Driving School Management System**

Aug 2024 - Nov 2024

https://cardriving.infy.uk/

https://github.com/NikhithaKChandran/CarDrivingSchoolManagement.git

- Designed and deployed a web-based management system to streamline operations in driving schools by automating key processes such as student enrollment, instructor scheduling, and record maintenance.
- Developed two distinct interfaces —— an Admin Panel for managing internal workflows and a Public Interface for student registration and inquiries.
- Used PHP for backend logic, MySQL for database management, and HTML, CSS, and JavaScript for creating a responsive and user-friendly frontend.
- Ensured smooth data flow between modules and implemented basic input validation for security and data integrity.
- This project enhanced my full-stack development skills and provided practical experience in building scalable systems for real-world business needs.

## **Higher Secondary Education**

## Amrita Vidyalayam

June 2020 - June 2022

Percentage: 97.2 %

Key Coursework: Python Programming (Procedural), MySQL Database Management, Data Handling using Pandas, File Handling, Basic Data Structures (Lists, Tuples, Dictionaries), Flow Control and Conditional Logic, Writing Python-MySQL Connectivity Programs, Data Visualization using Pandas, CSV and Text File Operations, Introduction to Programming Concepts and Algorithmic Thinking, Data Types and Variable, Statements and Scope, String Manipulations, Arrays; Physics, Chemistry, Mathematics and English Language and English Literature

#### Relevant Projects:

## **Airlines Management System**

March 2022 - April 2022

- Designed and developed a project to automate and manage key operations within an airline system, aimed at enhancing efficiency and customer experience.
- The system offers a centralized platform to handle and visualize airline data, reflecting the organization's adaptability to modern technologies.

- Built using Python and Pandas for data processing and Matplotlib for insightful graphical analysis.
- This project helped develop my skills in data handling, visualization, and programmatic automation of real-world business workflows.

## **Senior Secondary Education**

#### Indian School Al Wadi Al Kabir

**April 2008 - June 2020** 

Percentage: 97.4 %

Key Coursework: HTML & Web Page Design, QBasic Programming, Java (NetBeans IDE), Logo Turtle Graphics, Introduction to Basic Programming Logic and Visual Interface Design; Science, Mathematics, Social Science, Hindi, Malayalam

#### SKILLS

**Technical Skills:** <u>Programming Languages</u>: Python (Intermediate), C (Intermediate), Java (Basics), HTML, CSS, React (Basics), SQL (Intermediate), MongoDB (Basics), Flutter(Basics) <u>Frameworks & Tools</u>: ReactJS, Git, Android Studio, VS Code, MediaPipe, OpenCV, Jetpack Compose, FlutterFlow

<u>APIs and Libraries</u>: Android Speech API, Gemini Vision, OpenRoute Service API **Soft Skills:** Critical Thinking, Effective Communication, Creative Writing, Project Management, Leadership, Collaboration, Adaptability and Flexibility, Time Management, Attention to Detail, Conflict Resolution, Emotional Intelligence

## CERTIFICATIONS

## **TCS iON Career Edge - Young Professional**

TCS iON - June 2025

This course covered essential skills across various domains including Communication, Presentation, and Soft Skills, Career Guidance, Resume Writing, Group Discussion, Interview Skills, Business Etiquette, Effective Email and Telephone Etiquette, Accounting Fundamentals, IT Foundational Skills, and an Overview of Artificial Intelligence

## <u>Artificial Intelligence Primer Certification</u>

Infosys Springboard - May 2025

Completed a foundational certification covering core concepts of Artificial Intelligence, including machine learning, natural language processing, and the role of automation in real-world applications. Gained insight into Al's transformative impact across industries through hands-on modules, interactive examples, and real-world case studies.

## Gemini for Application Developers

Google Cloud Skills Build - May 2025

Completed a hands-on certification focused on building Al-powered applications using Google Gemini. Gained practical experience in integrating large language models into real-world scenarios, with exercises involving Python-based development, prompt design, and data-driven Al workflows. Explored capabilities like text generation, summarization, and data analysis using Gemini's APIs, and learned best practices for securely and efficiently deploying Al features within modern applications.

## IBM Skillsbuild Winter Certification Program on Prompt IBM Skillsbuild- Jan 2025 Engineering

A simulation as a Data Analyst at Accenture, advising a hypothetical social media client. Tasks included cleaning, modeling, and analyzing 7 datasets to uncover content trends, and preparing a PowerPoint deck and video presentation to communicate key insights for both the client and internal stakeholders.

#### Introduction to Open AI GPT Models

Infosys Springboard - Aug 2024

Completed a foundational course on OpenAI's Generative pre-trained transformers (GPT), focusing on how larg e language models understand and generate human-like text. Gained insights into model capabilities, limitations, and ethical considerations, along with practical exposure to prompt design, text summarization, and AI-assisted content generation using GPT-based tools.

## **Principles of Generative AI Certification**

## Infosys Springboard - Aug 2024

Completed a certification focused on the core principles behind Generative AI, including the functioning of foundation models, training techniques, and their applications across industries. Learned key concepts such as text and image generation, transformer architecture, and the importance of responsible and ethical AI development.

## <u>Data Analytics and Visualization Job Simulation</u> Accenture on Forage - July 2024

A simulation as a Data Analyst at Accenture, advising a hypothetical social media client. Tasks included cleaning, modeling, and analyzing 7 datasets to uncover content trends, and preparing a PowerPoint deck and video presentation to communicate key insights for both the client and internal stakeholders.

#### **INTERNSHIPS**

## Project Intern at Kochi Metro Rail Lmtd.

2<sup>nd</sup> June 2025 - 13<sup>th</sup> June 2025

Successfully completed a 2-week virtual internship at Kochi Metro Rail Limited (KMRL). As part of the internship, I contributed to the development of a project titled "Live Location Tracker for Kochi Water Metro", aimed at improving commuter experience by locating the user's current position and displaying real-time vessel locations. My responsibilities included designing a user-friendly UI/UX interface, developing the responsive frontend using ReactJS, and ensuring seamless performance across devices.

## Al & Data Analytics Internship

1<sup>st</sup> April 2025 - 30<sup>th</sup> April 2025

Completed a 4-week virtual internship on AI and Data Analytics for Green Skills under the AICTE-Shell – Edunet Skills4Future program. Gained hands-on experience in Pandas, Scikit-learn, and regression analysis, working on real-world wind power datasets to apply AI solutions for environmental impact assessment.

## **Cybersecurity Internship**

15<sup>th</sup> Jan 2025 - 26<sup>th</sup> Feb 2025

Completed a 6 - week virtual internship on Cybersecurity by AICTE and Edunet Foundation, gaining knowledge in encryption, decryption, and steganography. Built a Python - based tool to securely embed and extract encrypted messages from images, applying core concepts to real-world secure communication.

## Virtual Internship on Creative AI with Comfy UI 1st Dec 202 & Stable Diffusion

1<sup>st</sup> Dec 2024 - 31<sup>st</sup> Dec 2024

Completed a 4-week virtual internship on "AI: Transformative Learning" with TechSaksham (Microsoft & SAP CSR initiative) focused on generative AI using Comfy UI and Stable Diffusion. Gained hands - on experience in text-to-image generation, digital image processing, and designing AI-generated visuals using custom prompts, enhancing my understanding of creative AI applications.

## **EXTRA CURRICULAR ACTIVITIES**

## Joint - Secretary, Rajagiri ACM Student Chapter

March 2025 - Present

I serve as the Joint Secretary of the ACM RSET Student Chapter, where I play an active role in planning, organizing, and executing a wide range of technical events and initiatives aimed at enhancing student engagement in computing and innovation. My responsibilities include coordinating with the core team and volunteers to ensure smooth event logistics, managing internal communications, and supporting the ideation and scheduling of workshops, competitions, and speaker sessions. Through this role, I strive to promote a culture of continuous learning, teamwork, and technical excellence within the student tech community.

## **Public Relations Lead, Hack Club RSET**

Dec 2024 - March 2025

I spearheaded communication strategies to enhance the club's visibility, engagement, and outreach. I managed and curated content for social media platforms, coordinated with external collaborators, guest speakers, and partner organizations to promote events and initiatives. I worked closely with the core team to design and execute campaigns that increased student participation and fostered a strong tech-driven community.

## Ethical Hacking Workshop

- Created engaging digital posters and content that highlighted key takeaways of the workshop to attract participants from diverse technical backgrounds.
- Managed real-time updates and audience interaction during the event, enhancing live engagement.
- Collaborated with the content and design teams to ensure brand consistency across all communication materials.
- Played a key role in post-event follow-up, including sharing feedback forms, thank-you notes, and session highlights.

## Women Subcore Team, Rajagiri ACM Student Chapter Dec 2024 - March 2025

I actively supported the executive team in organizing and managing chapter initiatives, with key contributions to the planning, coordination, and logistics of various technical events., I remained an engaged team member—participating in discussions, assisting with outreach, and contributing to the smooth execution of chapter activities as part of the core volunteer group

#### · Code Charades:

- Played a key role in organizing this gamified coding challenge where participants acted out coding concepts.
- Assisted with rule explanation, time tracking, and ensuring fair play and engagement throughout the event.
- Gathered and compiled feedback post-event for future improvement.

#### Tech Bingo :

- Helped design an interactive bingo format that incorporated fun and educational techrelated prompts.
- Managed event logistics, including participant briefings and tracking rounds in realtime.
- Ensured clear communication between participants and hosts during the event.

#### • Prompt Perfection:

- Assisted in coordinating the Al-focused event that explored prompt engineering techniques using tools like ChatGPT and Gemini.
- Promoted the event across student platforms and helped manage registrations and participant queries.
- Supported the facilitation of live demo sessions and ensured smooth flow of activities.

#### **CULTURAL ACTIVITIES**

- Secured Third Position in the Tree Painting Competition at Bharatham Cultural Fest,
   May 2023 showcasing creativity and environmental awareness through visual art.
- Achieved First Position in Thiruvathira (traditional group dance) at Bharatham Cultural Fest, May 2023 – demonstrating teamwork, cultural appreciation, and performance skills.

## **NOTABLE ACHIEVEMENTS**

Secured Third Position in IEDC Hacks'us III Edition (General Track)

**Dec 2023** 

## **PERSONAL INTERESTS**

I am deeply passionate about software development and committed to growing in this ever-evolving field. With over 10 years of professional dance training and a strong interest in singing and hyper-realistic sketching, I bring creativity, focus, and attention to detail into my technical journey. These creative interests have strengthened my discipline and precision, fueling my passion for building intuitive tech solutions, especially in image processing and computer vision.

Over the next five years, I aspire to become a skilled and versatile software developer, working on innovative projects that combine design, technology, and accessibility. I am particularly drawn to roles that allow me to implement new ideas, lead technical initiatives, and contribute to meaningful advancements in the development domain. Embracing the principles of lifelong learning and adaptability, I aim to take on specialized or leadership roles that challenge me and help drive technological progress.

<u>Languages</u>: English, Malayalam, Hindi

#### REFERENCES

#### Dr. Preetha K G

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