

Karan Pandita

📍 Mumbai, India ✉ karan.p.hir.me@icloud.com 🌐 Konikz in Karan Pandita

Education

SRM University, Chennai

Oct 2020 – Oct 2024

B.Tech in Computer Science and Engineering

- GPA: 3.7/4 - First Class w/ Distinction
- **Coursework:** Data Structures and Algorithms, Design and Analysis of Algorithms, Object Oriented Design and Programming, Probability and Queueing Theory, Advanced Programming Practice, Computer Networks

Experience

Analyst Intern

Jan 2024 – Mar 2024

KPMG - Digital Lighthouse

Mumbai, MH, India

- Fine-tuned LLMs for a consulting chatbot, curating expert data to cut consultation time by 40%
- Contributed to business development by demonstrating the ability of the chatbot to validate project feasibility through relevant client data
- *Tools: Python, LLama2, FlanT5, HuggingFace*

Research Intern

July 2023 - Oct 2023

KPIT

Pune, MH, India

- Researched Post-Quantum Cryptographic Algorithms for Automotive Software, focusing on safeguarding ECUs from cryptanalytic attacks
- Led the development of a mock system showcasing the practical application of researched algorithms, earning a month-long extension to work on further deployment
- *Tools: Python, C, Embedded Systems, Hardware Security Modules (HSMs)*

Publications

Smart Battery Management Protocol for Wireless Stereo Pairs

Apr 2024

International Conference on Wireless Communication and Big Data (CWCBD)

Tokyo, Japan

**paper accepted*

- Designed power optimization techniques for wireless headphones to mitigate uneven energy consumption.

Transcription of Audio and Contextual Summarization using NLP

Dec 2023

International Conference on Information Management and Machine Intelligence [🔗](#)

Chennai, TN, India

- Developed an NLP speech-to-text system, achieving 60% storage efficiency with contextual summarization.

Projects

Financial Markets Suite

Aug 2024 - Jan 2025

Python, Django, FastAPI, React, PostgreSQL, Redis, NumPy, Pandas, Chart.js

[konikz.git](#) [🔗](#)

- Developed integrated financial tools: a Stock Exchange [🔗](#) with order matching, Market Data Simulator [🔗](#) with mathematical models, Strategy Backtester [🔗](#) with performance analytics, and an Options Pricer [🔗](#)

Raycaster Game Engine

July '24

C++, OpenGL, SDL, ImGui, CMake

[gameEngine.git](#) [🔗](#)

- Developed a raycaster engine inspired by Wolfenstein 3D, implementing movement, POV, and lighting

AI Assisted Portfolio Manager

May 2024

Google Cloud Console, Flutter Flow, AI/ML APIs

[demo.youtube](#) [🔗](#)

- Built a no-code stock management tool with real-time AI-driven market insights using Google Cloud

Movie Streaming Platform

May 2023

Java, Spring Boot, Jenkins, Docker, Kubernetes

- Developed a scalable microservices platform for video catalog management, authentication, and payments

Food Delivery App with Checkout System

Nov 2022

JavaScript, React.js, MongoDB, Express, Node.js, Stripe API

- Built a full-stack food delivery app with user authentication, dynamic filtering, and payment integration

Human Resource Management System

July 2022

Python, Django, HTML, CSS, JavaScript, SQL

- Led development of a comprehensive HR system for employee data, attendance tracking, and payroll

Pedestrian Mapping and Guidance System

Apr 2022

Python, SQL, Tkinter, Object-Oriented Programming

- Developed a system to guide pedestrians via shortest, least crowded routes using Serdyukov algorithm

Open Source Contributions

[allPullRequests.git](#)

- **Google Deepmind's** python-genai repo contributions: #628 [🔗](#); addressed issues in gemma: #243 [🔗](#)
- **GeomScale's** volesti functionality improvements: #355 [🔗](#); contribution to geometric computing in PorQua: #29 [🔗](#)
- **CNCF's** open-cluster management contribution: #936 [🔗](#); improved VM management in lima: #3384 [🔗](#), #3401 [🔗](#)

Roles of Responsibility

TEDxSRMIST

August '22 – March '23

Sponsorships

[TEDxSRMIST.linkedin](#)

- Founding member, made deals accounting for 50% of the event's budget through high-value sponsorships
- Played a key role in event logistics, sponsor relations, and the successful execution of the TEDx event, EUNOIA'23

Model United Nations

June '22 – August '22

Delegation

[MUN-SRMIST.linkedin](#)

- Represented SRM at inter-college MUNs, excelling in communication, negotiation, and diplomatic strategy
- Played a crucial role in building consensus, discussing policies and formulating resolutions on global issues

Technologies

Languages: Python, C, C++, Java, JavaScript, HTML, CSS, SQL

Frameworks & Web Technologies: Django, FastAPI, React, Node.js, Express, Spring Boot

Data Management & Processing: PostgreSQL, MongoDB, Redis, NumPy, Pandas, Chart.js

Graphics & Game Development: OpenGL, SDL, ImGui, CMake

Cloud & DevOps Tools: Google Cloud Console, Flutter Flow, Jenkins, Docker, Kubernetes

AI & Machine Learning: LLama2, FlanT5, HuggingFace, AI/ML APIs

Profiles

[GitHub](#) [🔗](#) [Konikz](#) [🔗](#)

[LeetCode](#) [🔗](#) [kp7322](#) [🔗](#)

[DuoLingo](#) [🔗](#) [KrnPndt](#) [🔗](#)

[Devpost](#) [🔗](#) [kp7322](#) [🔗](#)