

# Karan Jain

INTERN

Vellore, India

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## Personal Profile

I'm a fourth-year computer science student at VIT, Vellore. Dedicated to software engineering, I have experience in multiple programming languages, including Java, Python, and C/C++. Additionally, I have hands-on experience in full-stack web development, algorithms, and machine learning.

## Education

### Vellore Institute of Technology

B.Tech in Computer Science and Engineering (CSE)

Vellore, India

Sept 2020 - Current

- **Grade:** 9.21/10

### Chirec International School

CBSE, High School

Hyderabad, India

Jun 2018 - Mar 2020

- **Grade:** 95.6%
- Specialised in Physics, Chemistry, and Maths with Informatics Practices

## Skills

**Programming** Go, Python, Java, C/C++, Angular, PHP, HTML/CSS, JavaScript, SQL, NodeJS, Bootstrap, Flask, ML, React, R, Matlab, Flutter.  
**Miscellaneous** PowerBI, Microsoft Office, Firebase, Git, Snowflake (Snowpark), AWS, Kubernetes.  
**Soft Skills** Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation.

## Work Experience

### Couchbase

Intern

Bangalore, India

Jan 2024 - Present

- Worked on creating a Chaos Engineering framework for Couchbase Cloud (Capella) offering called Columnar.
- Performed chaos testing for Columnar.
- Worked on developing Internal Tool called 'Sirius' supporting Data Loading and Validation across several databases including MongoDB, Couchbase, DynamoDB, Cassandra, etc.
- Integrated Sirius with existing Testing Frameworks.
- **Technical Skills:** Go, Python, Kubernetes

### Fidelity Investments

Summer Intern

Bangalore, India - Remote

May 2023 - July 2023

- Worked on a Python package to support rapid application development and code re-usability by automating Data Engineering functions like data validation, data cleaning, outlier detection, and statistical measures.
- Created an Angular Interface using the same package to allow extraction of insights from data stored in the Snowflake environment and local files.
- The package employs both Snowflake and Snowpark connectors. It consists of more than 30 functions, curated considering the business unit's needs and operations.
- The package reduced the time and effort required in creating Data Engineering related applications and pipelines by a week.
- The application reduced the idling time of 2-7 days caused due to Snowflake access constraints and increased productivity.
- Also worked on creating an angular application for another project, "CO - Cost Optimization".
- **Technical Skills:** Python with Pandas, Matplotlib, Flask, Snowflake, Snowpark, Flask, Angular, SQL, HTML, CSS, Bootstrap.
- **Soft Skills:** Time Management, Communication, Presentation skills.

## University Projects

### Sahayata

VIT, Vellore

Aug 2022 - Nov 2022

- It is an Emergency Registration Portal designed to register emergencies and apply an NLP prioritizer to assist the most critical emergency at the earliest.
- Developed front-end Registration and Admin Portals.
- Integrated front-end with back-end API.
- Performed UI Testing.
- **Technical Skills:** HTML, CSS, JavaScript, Bootstrap.

## Skin Lesion Segmentation using UNet, SegNet and Ensemble Learning

VIT, Vellore

Sept 2023 - Nov 2023

- Implemented the UNet and SegNet models for individual segmentation predictions on skin lesion images.
- Developed a fusion process to combine the predictions from UNet and SegNet models by averaging corresponding pixel values for enhanced segmentation.
- Designed and implemented an ensemble learning approach - Bagging, for combining multiple instances of the enhanced UNet and SegNet models.
- **Technical Skills:** Python, Tensorflow, Machine Learning

## Stock Market Prediction

VIT, Vellore

Feb 2023 - Mar 2023

- Developed an ML model with 2 LSTM layers and 2 dense layers to predict the Closing Price of (Apple) stocks.
- Visualized historical data of Apple Stocks (Moving Average, Risks, etc.)
- **Technical Skills:** Machine Learning, Python, Pandas

## FoodEzy - Takeaway Ordering Portals

VIT, Vellore

Aug 2022 - Nov 2022

- It is a takeaway ordering website for local restaurants that will allow users to place a takeaway order and collect it whenever they are free without the need to stand in long queues.
- Developed front-end for the checkout page, user profile, and admin portal.
- Developed back-end using PHP and MySQL.
- **Technical Skills:** HTML, CSS, JavaScript, Bootstrap, PHP, MySQL.

## Uniconn - Chat Application for University Students

VIT, Vellore

Sep 2022 - Sep 2022

- It is a chat application that allows university students to interact with their classmates, juniors as well as seniors, allowing them to form new connections. It allows students to interact with each other using texts.
- Developed the web application using HTML, CSS, JS, PHP and MySQL.
- **Technical Skills:** HTML, CSS, JavaScript, PHP, MySQL.

## Traffic Management System (TMS)

VIT, Vellore

Feb 2022 - Apr 2022

- Designed and Developed a Matlab application for Traffic Management using Image Processing on Still Images and Video.
- Developed a Java Program for Vehicular Ad-Hoc Network (VANET) implementation.
- **Technical Skills:** Matlab, Java, Machine Learning

## Certificates / Courses

**Data Ingestion with Python**, LinkedIn

Jun, 2023

**Data Cleaning in Python Essential Training (2021)**, LinkedIn

Jun, 2023

**Flask Essential Training**, LinkedIn

May, 2023

**Natural Language Processing with Pytorch**, LinkedIn

May, 2023

**SQL for Exploratory Data Analysis Essential Training**, LinkedIn

May, 2023

**Training Neural Networks in Python**, LinkedIn

May, 2023

**Machine Learning - Stanford Online**, Coursera

Apr, 2023

**React.js Essential Training**, LinkedIn

May, 2023

## Organisations

**TEDx, VIT Vellore** Event Coordinator

**Digit SQUAD, VIT Vellore** Core Committee Member

**The Culinary Club, VIT Vellore** Core Committee Member

## Interests

**Cooking** I love cooking. I prefer Indian-style cooking and enjoy baking.

**Sports** I like to be active. I play football, badminton, cricket, etc.

**Photography** I'm not much of a professional but enjoy capturing my environment through the lenses of my phone.

## Languages

**English** Professional proficiency

**Hindi** Native proficiency

**Spanish** Elementary proficiency

**German** Elementary proficiency