# **RICHARD JOSEPH**

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#### WORK EXPERIENCE

#### **CARESTACK - PRODUCT ENGINEER INTERN**

#### JUL 2024 - DECEMBER 2024

- Al Automation with Azure: Developed Al-driven solutions to automate phone call transcription and form completion, leveraging Azure Functions for serverless deployment. Employed question answering models within the Azure ecosystem to streamline data processing.
- Cost Efficiency and Productivity: Significantly reduced reliance on manual labor and operational costs, enhancing overall process efficiency and productivity through Azure tools.

#### SOLYIELD - AI ENGINEER INTERN

FEB 2024 - APRIL 2024

- Created and Fine-tuned ML Models: Utilized CNNs, Bi-directional LSTMs, and Transformers to accurately predict output generation from solar panels, enhancing both efficiency and reliability.
- Spearheaded FAQ Chatbot Development: Worked on FAQ chatbot, integrating it seamlessly with LLMs using RASA. This initiative streamlined customer interactions and improved support processes.

### **PROJECTS**

**FIDELIUS** 

**OCTOBER 2024 - PRESENT** 

Al-Powered Data Masking and Obfuscation Tool: Led the development of a data masking tool leveraging Large Language Models(Ilama 3.2) that runs locally in the system. Used to remove Personally Identifiable Information (PII) from CSV [Excel, PDF/Text and Audio files. Enhanced tool flexibility with a feature for user-defined masking and obfuscation prompts.

#### **MONITUS AI**

**SEPTEMBER 2023 - PRESENT** 

• **Predictive Healthcare Application:** Engineered a generative AI tool that predicts adverse drug reactions based on patient demographics and medical history. Implemented using Flask and MongoDB, with predictions enhanced by knowledge base embeddings and fine-tuning on Large Language Models.

#### CASA AI

AUGUST 2023 - PRESENT

Automated Architectural Design: Created a generative AI tool for producing optimized architectural house
plans and 3D representations based on user inputs. Utilized Stable Diffusion and trained LoRa models for
generating architectural plans and OpenCV with three.js for visualization.

# **EDUCATION**

## **BTECH IN COMPUTER SCIENCE ENGINEERING**

YEAR 2025 GPA- 9.37

College of Engineering Trivandrum

YEAR 2020

Kendriya Vidyalaya No.1 Kochi

HIGHER SCECONDARY (CBSE)

Percentage- 95.6

## **SKILLS**

ADVANCED Data Structures and Algorithms, Gen AI - LLMs, Audio & Image Models, MongoDB, NLP

COMFORTABLE C, C++, Python, SQL, .NET, Java. Qdrant (vector database), PostgreSQL, Flask, Git, Azure,

OpenCV, Machine Learning, Embeddings, Transformers

**ACQUAINTED** UI/UX Design (Figma), HTML, CSS, JavaScript

# AWARDS AND ACHIEVEMENTS

## **HACKAI - DELL AND NVIDIA CHALLENGE - TOP 30 Finalist**

2024

GLOBAL HACKATHON - Placed in the top 30 globally

## **TECH CHAMPIONSHIP 2024 BY ALLIANZ TECHNOLOGY INDIA - Winner**

2024

• NATIONAL LEVEL SCHOLARSHIP - Placed among the top 50 winners. Won Scholarship of € 3000 euros

# **UST D3CODE - TOP 5 Finalist**

2023

NATIONAL LEVEL HACKATHON - Placed top 5 out of 11,000 teams. 2 Lakh INR

# CYIENTIFIQ INNOVATION LEAGUE - VALUE INNOVATION AWARD

2023

GLOBAL HACKATHON - Value Innovation Award. \$1000

#### PRADHAN MANTRI BAL SHAKTI PURASKAR 2020

2020

• Award from President of India for achievements in the field of Science and Innovation. 1 Lakh INR

# INTEL ISEF GRAND AWARD

2019

Intel International Science and Engineering Fair- 2nd Grand award - \$2200

# **ROLES AND RESPONSIBILITIES**

## TINKERHUB CET - PROJECT FACILITATOR

**JAN 2023 - PRESENT** 

• Lead and organize technology-focused events to foster innovation and community engagement.

# INTERNSHIP CELL CET - CO CONVENOR

FEB 2022 - PRESENT

Manage internship programs, enhancing career development services for students.