

**Rohit Krishnan**

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June 26, 2024

**Karyn Tan**

*Oho Group Ltd*

*London Area*

Dear Madam,

I am writing to apply for the Graduate Software Engineer position at your FinTech scale-up. As a 2024 graduate with a background in Artificial Intelligence, I am eager to start my career in a dynamic and innovative environment like yours.

I am currently finishing my MSc in Artificial Intelligence at the University of Surrey, with graduation expected in September 2024. My experience as a Part-Time Research Assistant at the University of Cambridge involved working on data pipelines, data cleaning, and machine learning model deployment using Python and SQL. These experiences have helped me develop strong problem-solving skills and technical expertise.

In my previous role as a Senior Software Engineer at Tiatech Health Technologies, I developed Python microservices for DICOM imaging and teleconferencing. This role required efficient time management and the ability to work well in a team.

I am excited about the opportunity to join your team and contribute to developing new data pipelines and deploying features. The mentorship and training you offer, along with the chance to work in a fast-growing and social environment, make this role a perfect fit for me.

Thank you for considering my application. I look forward to discussing how I can contribute to your team.

Yours faithfully,

**Rohit Krishnan**

*Attached: curriculum vitae*

# Rohit Krishnan

Software Engineer

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## Profile

A dynamic Software Engineer and ML enthusiast pursuing an MSc in Artificial Intelligence at the University of Surrey. Specialised in various web technologies and machine learning, I excel in tackling complex challenges and delivering innovative solutions. Known for rapid technology adoption, effective project application, and strong team collaboration, I continuously seek to enhance my skills.

## Experience

Oct 2023 – **Part-Time Research Assistant**, *University of Cambridge*, UK.

- Present
  - Contributing to Digital Manufacturing & Infrastructure Digital Twins projects.
  - Developed a sample tracking solution for a histopathology lab using various vision models for label detection and OCR for information extraction.
  - Optimized and packaged ML models for deployment on low compute microcontrollers.
  - Worked on building a Digital Twin platform for orchestrating federated simulation and analytics modules helping researchers to quickly develop and iterate on their ideas.

May 2022 – **Senior Software Engineer**, *Tiatech Health Technologies*, India.

- Jul 2023
  - Transformed "Tialmage" - a radiology viewer, impressing both company stakeholders and clients with the enhanced product UI/UX, leading to promotion to Senior Software Engineer within 3 months.
  - Developed Python microservices for DICOM imaging and teleconferencing, adopted by over 30 hospitals.
  - Ensured compliance with ONC certification for US markets, effectively meeting the stringent g10 and c1 criteria, solidifying the company's commitment to quality and regulatory standards.

July 2019 – **Summer Intern**, *Jaldee Soft Pvt Ltd*, India.

- August 2019
  - Developed well-tested Java Spring Boot services for an Angular frontend.
  - Utilized Agile methodologies with Jira and embraced Test-Driven Development (TDD) principles.
  - Enhanced software development skills through hands-on experience in real-world projects early in my career.

## Education

2023–Present **MSc Artificial Intelligence**, *University of Surrey*, Guildford.

- Specializing in Computer Vision, Deep Learning, and NLP.
- Strong understanding of machine learning fundamentals and AI ethics.

2018–2022 **Bachelor of Technology in Computer Science**, *Neusoft Institute of Technology*, Guangdong.

- GPA: 3.94, ranked among the top performers for the 2022 batch
- Thesis: Serverless e-commerce platform for cost-effective small-scale business operations.
- Notable course results:
  - Fundamentals of Programming (Java): 100%
  - Data Structures and Algorithms: 92%

## Projects

Title **Understanding HUMAN-HUMAN Interactions for Generating Motion from Text**

Description Training energy-based models to learn from videos and understand human-human interactions. Focused on generating realistic human motion sequences from textual descriptions using unsupervised learning. Applications include enhancing character animations, improving human-robot interactions, and creating immersive VR experiences.

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## Projects

Title **Digital Twin Orchestration Platform**

Description Developed a platform to enable researchers to compose and federate simulation models. Key components include:

- An orchestrator leveraging the Kubernetes API to queue simulation runs, manage dependency flows, and enable parallel execution.
- Kubernetes Custom Resource Definitions to abstract implementation details and provide intuitive configuration options for researchers.

Title **Digital Manufacturing on a Shoestring**

Description Gained hands-on experience at the University of Cambridge by deploying modularized components of the Shoestring architecture. Demonstrated expertise in IOT, Docker and Python scripting for streamlined and low-cost digital manufacturing implementations deployed for SMEs across the UK.

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## Skills

Languages Python, Java, JavaScript/TS, Rust, C

μ Controllers ESP32-S2, RP2040, nRF54, STM32 series

Frameworks PyTorch, React.js, FastAPI, Spring boot

Databases PostgreSQL, Redis stack, MongoDB, MySQL, Kafka, MQTT

Cloud/Tools AWS, Docker, Kubernetes, Git/Gitlab (automation and versioning), JIRA

Soft Skills

- Quick to blend into teams and contribute effectively.
- Hardworking with a strong commitment to project success.
- Excellent communication skills for clear and effective collaboration.
- Proficient at identifying business requirements and breaking them down into manageable tasks.
- Passionate about learning and research, with a keen ability to grasp new concepts and technologies quickly.

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## Honor and Awards

2022 Excellent Graduate Award for academic and athletics performance during my bachelors.

2018 Ranked first in 12th Grade Computer Science 98%

2017 Voted as the School Agni House Captain. Played a major role in orchestrating team activities and fostering a competitive and collaborative environment among students.

2016 Ranked first in 10th Grade Computer Science 99% and French

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## Languages

English: Native or Bilingual proficiency

Hindi: Native or Bilingual proficiency

Japanese: Beginner proficiency

Mandarin: Beginner proficiency