# **KUNAL RAJPUT**

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#### **EDUCATION**

Illinois Institute of Technology

Chicago, IL

Master's Degree, Computer Science Expected: May 2025

Relevant Courses: Cloud Computing, Machine Learning, Natural Language Processing, Mobile App Development

Pune University Pune, India

Bachelor of Engineering, Computer Engineering

August 2018 - July 2022

Relevant Courses: Data Structures and Algorithms, OOP, Relational Database Systems, System Programming and OS

#### WORK EXPERIENCE

Persistent Systems Pune, India

Software Developer

June 2022 - July 2023

- Spearheaded a cross-functional team of **6** to develop a Textile Process Automation software using MERN stack technology and responsive designs to enhance user experience, achieving a **60%** reduction in operational costs for the client
- Optimized 15+ critical operations, including inventory management, product scheduling, and cost analysis, via extensive
  data analysis and numerical computations significantly gaining 42% increased efficiency and 51% reduced manpower

Persistent Systems Pune, India

Software Developer Intern

January 2022 – June 2022

- Engineered a scalable Workforce Management Platform for 10,000 employees utilizing Django, Vue.js, MySQL, and Sass
- Streamlined over 10 core functionalities, such as authentication, onboarding, employee records, and attendance tracking
- Contributed to an Agile team of 8 developers, implementing continuous integration and delivery (CI/CD) pipelines for
  efficient deployment and active GitHub usage, managing version control and collaborative coding

Wolfizer Technologies Nashik, India

Web Developer Intern

*April 2021 – October 2021* 

- Built and redeveloped the official company <u>website</u>, achieving completion **2** months ahead of schedule, exceeding client expectations, and contributing to a **60%** increase in user engagement and **33%** improvement in site performance metrics
- Achieved a 40% reduction in post-launch issues through comprehensive unit and integration testing ensuring platform reliability, additionally implementing SEO best practices improving website visibility, resulting in a 24% traffic increase

## **PROJECTS**

Real-Time Chat Application | MongoDB, Express.js, React, Node.js, Tailwind CSS, JWT

December 2023

- Developed a comprehensive chat application using MERN Stack along with JWT authentication for secure login/signup
- Integrated Socket.io for real-time messaging and reduced overhead by 30% using Zustand for state management

Sign Language Detector | LSTM, TensorFlow, Keras, MediaPipe, Computer Vision

November 2023

- Prototyped a Deep Learning model, achieving 96% accuracy in Action Detection using MediaPipe framework
- Utilized LSTM, TensorFlow and Keras for real-time gesture prediction under 200ms latency from live visuals

Kiri AI - A Smart Voice Assistant | Flutter, Dart, RESTful API, Android/iOS

October 2023

- Created an advanced voice assistant app for Android/iOS using Dart and Flutter, integrating speech recognition
- Leveraged OpenAI APIs for text responses and on-demand image generation, boosting user engagement by 40%

Smart IQ Test Web App | React, AWS Amplify, AWS Cognito, GitHub

June 2023

- Developed a smart and engaging Intelligence based quiz game for 50k users using React and AWS Amplify, with secure AWS Cognito authentication and 40% faster CI/CD through GitHub
- Leveraged AWS's free tier keeping monthly costs under \$5, enhancing features to boost user engagement by 30%

Stock Price Prediction Model | LSTM, TensorFlow, Keras, RMSE

May 2023

- Engineered a TensorFlow Keras model with multiple LSTM layers, achieving 95% accuracy in stock price prediction by pre-processing extensive historical data from the Tiingo API. Trained on 80% and tested on 20% of the dataset
- Validated predictions using RMSE metrics and visually demonstrated results with plots and graphs, showing a 40% improvement in time series forecasting accuracy over traditional models

### **TECHNICAL SKILLS**

- Languages: Java, C, C++, JavaScript, Golang, Python, Swift, Dart, TypeScript
- Web Technologies: ReactJS, Redux, Node.js, Django, Angular, CSS, HTML, MongoDB, CSS, REST API, MySQL, Flutter
- AI/ML Technologies: LLM, Scikit-Learn, KV Caching, NumPy, Pandas, PyTorch, TensorFlow, Neural Networks, NLP
- Additional Skills: Spring Boot, Kafka, AWS, Hadoop, Big Data, jQuery, PolarDB, Redis, Firebase, Git, Agile Methodology