

# Nishchal Singi

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## PROFESSIONAL EXPERIENCE

### RadioFX

June-Aug, Sep-Dec 2025

Chicago, IL

#### Software Development Engineer Intern

- Deployed a **0 to 1 Generative AI Context-Aware RAG** Product Query app using **Python and React** by integrating a vector database with embedding models that reduced product query resolution time by 80%.
- Overhauled FCM (**Firebase Cloud Messaging**) token refresh and notification delivery using **Kotlin and Java**, reducing notification failures by 80% and ensuring reliable message delivery across platforms.
- Cut deployment latency by 75% by automating **CI/CD** workflows and orchestrating **GKE (Google Kubernetes Engine)** pipelines, enabling rapid, reliable releases.

### Ivanti

Aug 2022 - July 2024

India

#### Software Development Engineer

- Engineered end-to-end full stack web application with database architecture using **Python and Postgres SQL** by integrating **distributed storage solutions** like **database sharding and scaling**, which boosted data synchronization efficiency by 95% and enabled seamless handling of **1M+ daily transactions**.
- Developed a comprehensive, responsive, and interactive analytics dashboard with intuitive front-end data visualization using **React, TypeScript, Redux, Node.js** that combined real-time **Machine learning** pipelines, resulting in a **25% reduction in false positives**.
- Accomplished full-cycle development of a secure **captive portal** solution as measured by successful deployment across flight and banking sectors, by designing and implementing custom **authentication workflows and session management in C++**, ensuring compliance with industry-grade security standards.

### OpenText

Nov 2021 - July 2022

India

#### Software Development Engineer

- Developed an event-driven, full-stack data-processing pipeline integrating AWS, GCP, and Azure using **Python, RabbitMQ, and Kafka** to orchestrate asynchronous data ingestion, transformation, and retrieval thereby reducing processing time by 30% and doubling throughput while maintaining 99.99% availability.
- Designed and implemented Quick-Data-Synchronization using **Java, Python, and GraphQL**, achieving **25% reduction** in time-to-market for global systems data sync.
- Integrated multi-cloud storage providers **AWS, GCP, Azure** with OpenText CMS using **Python, JavaScript, and MSSQL**, reducing server load by 75%.

## PROJECTS

### Endava x Google Cloud Hackathon | *Python, GCP, Google ADK (Agent Development Kit), AI Agents*

- Won the **Endava x Google Cloud Hackathon** by building a suite of AI agents (GoToMarketing, Data Analysis, Competitor Analysis) using **Google ADK (Agent Development Kit)** that automated product launch workflows using Google Cloud and the Google Search API.

### DISTANT - Social Media Application | *Python, React, JavaScript, MongoDB, Express, Node.js, AWS, Firebase*

- Engineered a scalable architecture achieving **50ms average latency** for post updates and **WebSocket** based real-time notifications that reduced API calls by 65%.
- Architected and deployed a **full-stack** social media platform, with **99.9% uptime**, and reducing server costs by 40% through efficient **GCP** resource utilization.

### Google Summer Of Code | *Python, React, Tensorflow, Web Sockets, Machine Learning, Deep Learning, JavaScript*

- Engineered a **React app** for Biomedical machine learning pipelines, and implemented custom **Python Web-Sockets** for real-time workflow communication, reducing **REST API calls by 75%**.
- Developed a **CNN** based **Deep Learning** algorithm using **TensorFlow and Sklearn**, achieving 90% accuracy in MRI image classification, resulting in **publication at IEEE CCECE 2024**.

## EDUCATION

### University of Illinois at Chicago

GPA: 4.0

Masters in Computer Science (MSCS)

Expected Graduation: Spring 2026 (May 2026)

**Coursework:** Algorithms and Data Structures, Advanced Machine Learning, Object-Oriented Programming, Artificial Intelligence, Secure Web Application Development, Energy Efficient Deep Learning

## TECHNICAL SKILLS

**Programming Languages:** Python, Java, C/C++, JavaScript, TypeScript, HTML/CSS, Node.js, SQL

**Databases:** MySQL, PostgreSQL, SQLite, MSSQL, NoSQL databases, AWS S3, , MongoDB, GCP

**Libraries & Tools:** Tensorflow, Keras, PyTorch, NLP, Pandas, NumPy, Matplotlib, Git, Docker, RabbitMQ, Kafka

**Frameworks:** React, REST API, Flask, Django, React-Native, GraphQL, Elasticsearch, Spring Boot, Angular

**Skills:** Product Management, Full Stack Web Development, DevOps

## PUBLICATIONS

**Classifying and Quantifying MRI Image Quality from DICOM Data at the Edge:** First-authored and presented at IEEE CCECE 2024

**Visualizing Scanner Utilization From MRI Metadata and Clinical Data:** Published in IEEE Journal