# NIRMAL BOGHARA

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#### **Education**

New York University, MS in Computer Science - New York, NY

Expected May 2026

• Coursework: Algorithms, Information Security and Privacy, Database Systems, Machine Learning, Big Data

University of Mumbai, BE in Computer Engineering - Maharashtra, India

Jun 2024

• Coursework: Operating Systems, Machine Learning, Computer Networks, Applied Cryptography, Data Structures

## Experience

Technical Ambassador, Qualcomm - New York, NY

Feb 2025 - Present

- Developed a low-latency AI teaching assistant utilizing Distilled Qwen 1.5B Local LLMs and ONNX Runtime, providing offline access to rural educators while achieving an impressive accuracy rate of 92% through Agentic RAG architecture.
- Building hybrid agentic architecture of top professors & educators to provide 24/7 access to their knowledge and guidance using their open source learning(Github, Courses, Youtube, Podcasts, Papers) where users can switch between online/offline modes. Developing an android application for the same with the AI directors of Qualcomm. Github Link

Software Engineering Intern, Bitnine – San Francisco, CA (Remote)

Apr 2024 – Jun 2024

- Optimized PostgreSQL databases with Oracle compatibility on AWS, improving complex query performance by 23% for enterprise-scale fintech applications. Optimized & enhanced ODBC C driver for PostgreSQL databases.
- Resolved 20+ critical issues in the Python driver for Apache AGE project as an open-source contributor, enhancing its stability and reliability. Initiated Oracle OCI driver development in C for PostgreSQL databases from scratch, achieving compatibility with Oracle and scalability, and providing a framework for subsequent phases.

Software Development Engineer Intern, Feat Systems – Maharashtra, India

May 2023 - Aug 2023

- Improved Java/Spring Boot applications using Agile methodologies, **reducing customer complaints by 15**% and streamlining CI/CD workflows with Jira and GitHub.
- Developed comprehensive documentation for the software development lifecycle, leveraging GitHub for version control and Jira for task management, ensuring seamless collaboration and accessibility of resources
- Implemented efficient MySQL-based solutions to streamline access to critical information, achieving a 30% improvement in onboarding speed for new team members and boosting team productivity.

Full Stack Developer Intern, Goldenmace IT Solutions - Maharashtra, India

May 2022 – Jul 2022

- Designed a full-stack dashboard using TypeScript, Svelte, and MongoDB, **boosting client satisfaction by 20**% through performance optimization and intuitive UI/UX.
- Implemented TypeScript and Svelte for code optimization and caching mechanisms, **boosting dashboard performance by 30**%. Integrated PostgreSQL and MongoDB for data storage, ensuring fast and efficient data retrieval.

#### **Technical Skills**

Languages: Java, Python, C#, SQL, JavaScript, HTML, R, Golang

Frameworks & Libraries: Django, Node.js, React.js, Svelte, TypeScript, Springboot, PHP, Three.js, WebGPU

Tools: Git, AWS, Kubernetes, Docker, MS Excel, Jira, Microsoft Azure, Matlab

Machine Learning: TensorFlow, PyTorch, Langchain, Scikit-learn, NumPy, Pandas, Matplotlib, ONNX Runtime

Data: PostgreSQL, MySQL, MongoDB, Apache Kafka, Hadoop, Tableau, PowerBI, Scala, GraphQL

## **Projects**

FitFarm - Smart Agriculture System (Machine Learning, Python, IoT, JavaScript)

Github Link

• Trained ML algorithms (SVM, Random Forest) using Python, TensorFlow, and **Scikit-learn** to predict the most suitable crops according to soil conditions with 93% accuracy. Published a research paper in the IJRASET.

Automated Employee Tracking System (Python, NumPy, TensorFlow, PyTorch, YoloV7) - AI Engineer at Soulible Digital

• Built a computer vision system using YOLOv7 and TensorFlow, automating attendance tracking for 200+ employees and reducing manual effort by 50%. Analyzed the face recognition attendance system using Python, NumPy, and Pandas.

**Zinzraa - Top E-commerce on AJIO** (ExpressJS, Vite+React, Node.js, MongoDB)

Website Link

• Spearheaded a user-friendly interface for the shopping website, incorporating **MERN Stack**, leading to a 20% increase in user engagement and a 15% decrease in bounce rate. Deployed CRM and SEO tools to optimize web content and drive organic traffic, resulting in a 30% increase in conversion rates and boost in online sales revenue.

#### Fittify - One Stop Health Platform (MERN Stack)

Github Link

• Engineered a comprehensive health solution using React.js and **Node.js**, piloting it with 150 students. Achieved 95% user satisfaction and 25% improvement in health metrics through personalized medical record tracking, diet plans, and workout routines. Successfully scaled to 500+ users while maintaining performance and intuitive UI made with **Tailwind CSS** 

### **Awards & Extra-curriculars**

- AI Business Fellow at Perplexity Diving deep into realm of AI with industry leaders in USA.
- 3x Hackathon Winner Built AI Agents, AI Hedge Fund, Tutor AI.
- National Level Baseball Player at MIT-WPU, India Runners up in Semi Finals representing University of Mumbai.