



Nitin Kumar Goyal

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PROFILE SUMMARY

Dynamic Software Developer with 3+ years of experience in AI and ML. Skilled in building real-time analytics engines, optimizing performance, and developing gesture recognition models. Skilled in Python, SQL and microservices, delivering scalable, impactful solutions. Passionate about innovation and data-driven transformations.

WORK EXPERIENCE

Open Access Technologies International.

Mohali, India

Software Developer - Advanced Metering IoT

Sep 2023 - Aug 2024

- Designed and deployed **IoT** gateway solutions to process and transmit over **1 million records of smart meter data**, enabling actionable insights.
- Developed **Grafana dashboards** for real-time Advanced Metering Infrastructure (AMI) visualization, optimizing energy usage patterns and identifying anomalies.
- Collaborated on optimizing software design and testing pipelines, achieving a **20% improvement** in system performance and user satisfaction.

Software Developer - Advanced Metering IoT

Sep 2022 - Aug 2023

- Spearheaded data analytics initiatives by implementing **predictive models** with over **80% accuracy**, reducing energy wastage by trend analysis & forecasting.
- Processed and analyzed large volumes of smart meter data using **big data** technologies, enabling better load forecasting and **grid management**.
- Automated data ingestion pipelines for **big data** platforms, improving processing efficiency and reducing manual intervention by **30%**.

Associate Software Developer - WebOMS

Sep 2021 - Aug 2022

- Implemented real-time outage tracking system, leveraging **IoT** for efficient **data management & decision-making**, results in **30% faster response time**.
- Enhanced servicing time by **40%** and reduced operational costs by **12%** through streamlined data processing and automation techniques.
- Developed a user-friendly interface for outage reporting, boosting response efficiency by **25%** using interactive design principles.

Intern - Web Outage Management System.

Mar 2021 - Aug 2021

- Refactored over **500 lines** of **SQL** code, increasing query speed by **30%** and enhancing database operations.
- Streamlined error resolution processes through robust documentation, enabling **20% faster bug fixes** and improving team knowledge sharing.
- Applied skills in bug fixing, user experience enhancement, and data-driven solutions to resolve complex system issues.

PROJECTS & INTERNSHIPS

Sign Bridge - AI-Powered Sign Language Translation System

- Built an **AI-powered system** for real-time **sign language translation**, achieving a **94% accuracy rate** in gesture recognition through optimized machine learning pipelines.
- Engineered a **30 FPS computer vision pipeline** using **OpenCV** and **MediaPipe**, enabling precise hand tracking for responsive gesture interpretation.
- Integrated **Google Text-to-Speech (gTTS)** for audio feedback, enhancing accessibility by delivering instant verbal responses.
- Conducted in-depth optimization of machine learning models, improving processing efficiency and boosting system performance for real-world usability.

Multi-Platform E-commerce Analytics Engine

- Designed and implemented a **full-stack web application** integrating **FastAPI** for backend connectivity and **Selenium** for scalable data extraction, collecting over **5,000 data points** across e-commerce platforms.
- Achieved a **4x faster data collection rate** by optimizing retrieval processes through a **multi-threaded scraping architecture**, enabling efficient and high-volume analytics.
- Developed robust **RESTful API endpoints** for seamless interaction between frontend and backend services, ensuring data consistency and scalability.
- Integrated advanced **error handling and logging mechanisms**, maintaining **system stability** and simplifying deployment pipelines.

EDUCATION

Northeastern University 2024 - Present

Masters in Machine Intelligence
3.9/4.0

Punjabi University 2017 -21
B.Tech(CSE) 8.34/10.0

TECHNICAL SKILLS

- Languages:** Python, C/C++, SQL, HTML/CSS
- Frameworks:** FastAPI, TensorFlow, pytorch
- Developer Tools:** Google Colab, Git, Docker, Grafana, VS Code, PyCharm
- Libraries:** pandas, NumPy, Matplotlib, Selenium, Seaborn

EXTRA CURRICULUM

- Event Organizer, Virsa – Annual Technical Fest:** Boosted participation in 4-5 events from 10+ colleges, driving 1,000+ attendees.
- Team Captain, Aeromodelling – MotoSport Club:** Led a 5-member team to design and build a successful RC plane.
- Certified** in Machine Learning with Python (IBM), specializing in Regression, Classification, Clustering, SciPy & scikit-learn