

Samuel Jeromiah Gnanam

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PROFESSIONAL EXPERIENCE

- InterPe, Chennai, India - Software Development Intern** Jul 2022 - Aug 2022
- Strengthened code maintainability and reduced debugging time implementing systematic code review processes applying OOPS principles across 5 Java applications through collaborative problem-solving in weekly scrum meetings
 - Delivered software solutions within deadlines effectively collaborating with 6-member team to implement features troubleshooting technical issues and ensure seamless integration
- Nuray Chemicals Private Limited, Chennai, India - IT Operations Intern** Jul 2023 - Aug 2023
- Achieved automated data logging for pharmaceutical operations designing environmental monitoring systems establishing LAN connectivity to servers ensuring continuous tracking of storage conditions
 - Ensured quality control data transmission calibrating analytical instruments for chemical analysis proactively troubleshooting and resolving logging failures
- BSNL (Bharat Sanchar Nigam Limited), Chennai, India - Data Networking Intern** Jul 2024 - Aug 2024
- Diagnosed and resolved 15 network connectivity issues improving efficiency by 8% across telecommunication channels
 - Analyzed and optimized network infrastructure configurations supporting telecom operations ensuring system reliability

ACADEMIC PROJECTS

- ChestAI - Medical Image Classification System** Jan 2026
- Developed deep learning system for chest X-ray analysis using Python, PyTorch, and TensorFlow processing 223K+ images implementing supervised learning classification models demonstrating computer vision experience
 - Applied analytics building predictive models using CNNs analyzing results implementing data pipeline with preprocessing and feature engineering communicating results through visual dashboards
- Credit Card Fraud Detection System - Machine Learning Application** Dec 2024
- Engineered XGBoost classifier achieving 99.6% accuracy on 1.3M+ transactions developing 31 features capturing spending patterns and temporal anomalies utilizing SMOTE to address class imbalance
 - Deployed Streamlit application providing real-time fraud prediction with explainable AI reasoning risk visualization dashboards and automated alerts for transaction monitoring
- Patient Sentiment Analysis - NLP Healthcare Application** Nov 2023
- Constructed sentiment analysis processing 10,000+ patient reviews using Flask, Python, and MongoDB implementing visualizations text-to-speech functionality and web scraping for drug information retrieval
 - Applied NLP models to classify sentiment with 85% accuracy while summarizing drug descriptions and adverse effects for data-driven healthcare decision-making
- Smart Blind Navigation Kit - AI Powered IoT System** Feb 2020
- Won 1st Prize at National Science Day Expo redesigning navigation prototype integrating Arduino, Raspberry Pi, and sensors for real-time obstacle detection with audio alerts
 - Enhanced navigation accuracy through GPS tracking mobile application delivering real-time location monitoring and route guidance creating assistive device for visually impaired individuals
- Employee Management System - Full Stack Application** Nov 2023
- Architected full-stack CRUD application integrating Spring Boot backend with Angular frontend implementing database operations exception handling and CORS configuration
 - Designed responsive application using Angular, Bootstrap, and RxJS with component architecture dynamic routing and HTTP services for real-time data management

TECHNICAL SKILLS AND COMPETENCIES

- AI/ML:** Machine Learning, Deep Learning, NLP, Computer Vision, Reinforcement Learning, XGBoost, Scikit-learn, Feature Engineering, LangChain, LangGraph
- Languages:** Python, SQL, Java, JavaScript, C, HTML, CSS, TypeScript
- Frameworks:** Flask, Streamlit, TensorFlow, PyTorch, Spring Boot, Angular
- Data Science:** Pandas, NumPy, Matplotlib, Seaborn, Data Preprocessing, Statistical Analysis
- Databases:** MySQL, MongoDB, Database Design, JPA/Hibernate
- Tools:** Git/GitHub, Jupyter Notebook, RESTful APIs, Arduino, Raspberry Pi
- Certifications:** Computer Vision, Data Science, Robotic Process Automation & IoT Foundation - Infosys

EDUCATION

- Northeastern University** **GPA: 4.0**
Khoury College of Computer Sciences, Master of Science in Artificial Intelligence
- Related courses:** Foundation of AI, Algorithms, Programming Design Paradigm, Machine Learning
- Anna University** **GPA: 3.2**
Bachelor of Technology in Artificial Intelligence and Data Science
- Related courses:** Reinforcement Learning, Natural Language Processing, Deep Learning