Prisha Sarna

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EDUCATION

University of Alberta   Edmonton, AB
Bachelor of Science in Computing Science   *Sep 2022 – May 2027*
- Relevant Coursework: Machine Learning, Reinforcement Learning, AI Search & Planning, Data Structures, Advanced ML, Software Engineering

CERTIFICATIONS

AWS Certified Cloud Practitioner | Validation: 91a6047231a24e1ca83a54e25a39fdbf   Nov 2025 – Nov 2028
Introduction to Generative AI | View Badge   2025

TECHNICAL SKILLS

Programming Languages: Python, Java, JavaScript, C, R, HTML/CSS, Visual Basic
Frameworks & Libraries: React, Node.js, Express, Flask, Pandas, NumPy, PyTorch, TensorFlow, Scikit-learn, Matplotlib, NetworkX, Tkinter, Tailwind CSS, Three.js
Developer Tools: Git, GitHub, Postman, Figma, Tableau
Databases & Technologies: PostgreSQL, MongoDB, SQL, Firebase, Cloudinary, OAuth2.0, REST APIs, OpenCV, NLTK, SAP (Ariba, ECC, S4 HANA)

EXPERIENCE

Undergraduate Research Assistant | DANS Lab   Sep 2025 – Present
University of Alberta   *Edmonton, AB*
- Established deep-learning baselines by systematically evaluating and testing a suite of cutting-edge Graph Neural Network models (e.g., GCN, GAT, FraudRE) on multiple financial datasets exhibiting varied heterophily patterns.
- Pioneering the application of a **LangChain agent** powered by **Hugging Face models** to refine and automate financial text analysis and data extraction via **prompt engineering**.

Tech and Integration Co-op Student [Data Engineering]   May 2025 – Dec 2025
City of Edmonton   *Edmonton, AB*
- Designed and deployed automated Python pipelines to extract data via Operational Reporting and Sourcing APIs, performing daily validation before storing in Oracle SQL Server for enterprise data warehousing.
- Built an AI-driven internal ticket classification system to categorize and route supplier remedy tickets, decreasing response time to queries by 60%.
- Developed real-time analytics dashboards using APIs and Tableau to optimize supplier workflow efficiency.
- Created reporting infrastructure to track KPIs and measure tool effectiveness, providing quantitative pre and post-implementation analysis.
- Optimized supplier inbox management through automated workflows and APIs, reducing ticket volume and enhancing operational efficiency.

PROJECTS

UNTAPPED – Artist Management Portal | GitHub | *React, Node.js, PostgreSQL, Cloudinary, OAuth2.0, Tailwind CSS*
- Led end-to-end product development as Project Manager & Product Owner for a web and mobile-friendly artist management portal used by non-profit arts organizations to streamline artist onboarding, invoicing, and payment tracking.
- Designed wireframes and user flows for artists and administrators, optimizing critical journeys such as profile setup, invoice submission, and payment status tracking to meet strict usability and reliability requirements.
- Implemented core full-stack features including artist authentication (email-based login), artist profile creation with public URLs, invoice submission with document uploads to Cloudinary, and an invoice dashboard showing real-time payment status.
- Built administrator tools such as an artist database with search and filters, invoice review and approval workflows, and payment tracking dashboards backed by a normalized PostgreSQL schema and RESTful APIs.

Event Registration System with Lottery | GitHub | *Java, Firebase, Android Studio, HTML/CSS*
- Built a full-stack Android app with a lottery-based selection mechanism to improve event accessibility for participants with time constraints.
- Implemented a fair lottery algorithm ensuring equal participant access and distribution.
- Designed and developed an intuitive, mobile-responsive UI with seamless authentication, achieving strong positive user feedback.

- Collaborated with a cross-functional team to integrate front-end and back-end components, refining usability based on team feedback.

Skincare Routine Analyzer & Climate Adjuster | <u>GitHub</u> | *Python, Tkinter, NetworkX, Matplotlib, Pandas*
- Developed a skincare optimization system analyzing 500+ ingredient interactions with 95% accuracy in compatibility predictions.
- Built an interactive dashboard using NetworkX graphs for ingredient relationship mapping and analysis.
- Implemented a climate-based recommendation engine incorporating humidity, UV index, and pollution data, improving effectiveness by 40%.

Computer Vision & NLP Analysis Suite | <u>GitHub</u> | *Python, OpenCV, NLTK, Scikit-learn, Pandas*
- Built a data analysis pipeline to process multiple datasets, achieving 99% accuracy for automated insight generation.
- Implemented computer vision algorithms for skin disease classification using OpenCV, reaching 94% accuracy.
- Developed NLP models for text and sentiment classification, processing 10,000+ samples with 92% accuracy.

LEADERSHIP & MENTORSHIP

University of Alberta - Faculty of Science   Edmonton, AB
Science Mentor   *Aug 2025 – Present*
- Lead mentorship initiatives for incoming students, facilitating cross-cultural integration for first-year science students.

University of Alberta - Lister Centre   Edmonton, AB
Peer Academic Tutor   *Aug 2025 – Present*
- Provide residential academic support and tutoring, fostering collaborative study environments.

University of Alberta - Students' Union   Edmonton, AB
Registered Academic Tutor   *Sep 2023 – Present*
- Deliver specialized tutoring in Computer Science and Statistics, helping 20+ students improve academic performance.