

Eshupriye Belgotra

+1 (250) 986-7614 · eshupriyebelgotra@gmail.com · Victoria, BC · [linkedin.com/in/eshu-belgotra](https://www.linkedin.com/in/eshu-belgotra) · github.com/eshu3104 · eshu.earth

Education

Bachelor of Science in Computer Science | University of Victoria *Jan 2023 – Apr 2028 Victoria, BC*
– GPA: 7.38/9.0 (\approx 3.70/4.0) · Coursework: Algorithms & Data Structures, OOP, Software Development Methods, HCI

Technical Skills

Languages: Python, Java, C, JavaScript, TypeScript, SQL, Swift

Frameworks & Tools: React, Next.js, Flask, FastAPI, Node.js, REST APIs, Git, GitHub Actions, Linux/Unix

AI/ML: RAG, vector embeddings, semantic search, NLP, PyTorch, scikit-learn, HistGradientBoosting

Databases & Cloud: PostgreSQL, MySQL, SQL Server, Supabase, Redis, Azure DevOps, SSIS

Experience

Machine Learning Mentee | RBC Borealis – Let’s Solve It *Mar 2026 – May 2026 Victoria, BC*
– Conducted exploratory data analysis on **1,500+ longitudinal youth health engagement records** (3+ years) in a team of 4 alongside 2 senior AI researchers, surfacing disengagement signals across **20+ behavioural features** with Python, Pandas, and NumPy
– Reduced high-dimensional engagement data to 2D embeddings via UMAP clustering in scikit-learn, isolating **4+ distinct user cohorts** to inform downstream model design
– Built and trained PyTorch models to flag at-risk youth navigating chronic illness, learning from 3+ years of longitudinal engagement data to enable earlier clinical intervention
– Designed an analytics dashboard for **4+ clinical and program teams**, visualizing retention curves, engagement trends, and disengagement risk flags with Python, Matplotlib, and GA4

Clinical Application Analyst (Co-op) | Island Health *Sep 2024 – Apr 2025 Victoria, BC*
– Designed and built a multi-screen Clinical Governance Membership Management System in Power Apps for **5,000+ members** across BC’s healthcare system, with automated permission workflows, real-time roster edits, and audit-ready compliance reporting
– Engineered automated data pipelines querying and transforming **10,000+ patient records** in SQL Server, reducing manual data-entry time by **80%** and improving cross-system data accuracy
– Migrated legacy mental health housing system from MS Access to SQL Server; designed schema, authored data-loading scripts, and corrected fiscal calculation logic to support **2,000+ annual residential applications**
– Delivered **3 production releases** via Azure DevOps and ServiceNow with **zero critical incidents** through end-to-end QA; authored PowerShell and SSIS automation saving the team **10+ hours per week**

Projects

Personal Portfolio Site [\[eshu.earth\]](https://eshu.earth)

Next.js, Tailwind, Supabase, Redis, Three.js, WebAudio, OpenAI, GitHub Actions *May 2026*
– Built a RAG-backed AI chat assistant using OpenAI embeddings and Supabase pgvector, retrieving grounded context with sub-second latency
– Automated knowledge-base sync with a GitHub Actions pipeline that parses the LaTeX resume with Claude, re-embeds with OpenAI, and upserts to Supabase on demand
– Engineered a low-latency TTS pipeline (time-to-first-audio under **500ms**) driving a lip-synced Three.js 3D avatar at **60fps**; hardened the API with per-IP rate limiting, audit logging, and a GDPR-compliant privacy policy

PreCheck.ai [\[precheckai.tech\]](https://precheckai.tech)

nvHacks 2026 Finalist: Best Use of Gemini API & .tech · 600+ participants *Jan 2026*
– Co-led a 4-person team to Finalist among **600+ participants**, owning the system architecture, sprint planning, and the winning pitch for an AI tool scoring insurance claim-denial risk against BC policies (MSP, Pacific Blue Cross, Sun Life)
– Pair-programmed the React/TypeScript frontend and remediation dashboard surfacing the model’s citation-level fix instructions and 0–100 denial probability

FoodBridge [\[eshu3104.github.io/uvichacks-jan26\]](https://eshu3104.github.io/uvichacks-jan26)

UVicHacks 2026 – People’s Choice Award, 7th Overall *Jan 2026*
– Designed and built the full React/TypeScript frontend in **24 hours** – a multi-page food-rescue marketplace prototype with donor/shelter dashboards, donation flows, volunteer pickup routing, and inventory tracking

SkyNet – Space Biology Knowledge Engine [\[github.com/eshu3104/nasa-hackathon-2025\]](https://github.com/eshu3104/nasa-hackathon-2025)

NASA SpaceApps Hackathon 2025 *Oct 2025*
– Co-built an AI semantic search engine over **608 NASA publications (11,460 chunks)** in Python/Flask, authoring the chunking, OpenAI embedding, FAISS index, and ranking pipeline, with GPT-4o-mini summarization cutting literature-review time by **60%**

Awards

Tenfold Cursor Hackathon 5th Place (2025) · AWS DeepRacer 5th/100, within 2s of world record (2024) · UVic Co-op Scholarship (2025)