Divit Singhal

+1-(780) 318-2779 | divitsinghal2004@gmail.com | linkedin.com/in/divit-singhal | github.com/divitsinghall

Education

University of Alberta Edmonton, AB
Bachelor of Science Major in Computer Science - Artificial Intelligence *Sep 2022 – Dec 2026*

- **Relevant Coursework:** Data Structures and Algorithms, Software Engineering, Software Process and Product Management, C Programming, Reinforcement Learning, Search and Planning in AI, AI Capstone, Computer Vision, Advanced Machine Learning, Ethics in AI, Database Management

Technical Skills

- **Languages:** Java, Python, C/C++, JavaScript, TypeScript
- **Systems & Tools:** Linux/Unix, Git, Docker, JUnit, SQL (PostgreSQL), MongoDB, pytest, Kubernetes, Figma
- **Cloud:** GCP, AWS, Azure
- **Frameworks:** React, Node.js, Next.js, Flask, Django, Tailwind CSS
- **Machine Learning:** PyTorch, TensorFlow, scikit-learn, NumPy, pandas

Experience

Amazon (Incoming) May 2026 – August 2026
Software Development Engineer Intern *Vancouver, BC*

- **Return SDE intern with Auto Augmentation Core Team**

Amazon May 2025 – August 2025
Software Development Engineer Intern *Vancouver, BC*

- **Owned** an incident-diagnostics platform end-to-end and **worked backwards from on-call customers**, cutting p95 triage **44% (25→14 min)** and MTTR **42% (3.1h→1.8h)** by aggregating telemetry from **6+ APIs / 9,000+ microservices.**
- **Invented and Simplified** request handling via a pooled session manager, boosting **API throughput** and trimming redundant calls **30%** through connection reuse during large-scale investigations.
- **Dove Deep** into historical incidents and **Learned and Were Curious** to integrate Amazon Q "known-issue" surfacing, reducing false starts in RCA by **35%**.
- **Insisted on the Highest Standards** and showed **Bias for Action** by adding pre-release rule-based validations (JDK/runtime/dependency checks), enabling **200+** automated daily service health checks.
- **Raised the bar** across teams by standardizing telemetry fields and validations via **cross-functional design/code reviews, codifying shared runbooks and checklists** to streamline investigations team-wide.

University of Alberta — Department of Computing Science January 2025 – April 2025
Research Assistant *Edmonton, AB*

- Developed a semi-supervised CNN and active learning pipeline classifying rodent vocalizations from a 47,000+ audio file dataset, improving precision and recall from 22% to 77%.
- Engineered advanced preprocessing (ultrasonic frequency filtering at 17–40 kHz, LogMMSE denoising) to isolate bioacoustic signals and enhance audio feature quality.
- Implemented fuzzy clustering (LAMDA 3π) and constrained K-means with domain-expert guidance, optimizing data organization and interpretability for active learning.
- Designed an iterative active learning framework using entropy-based uncertainty sampling and expert feedback, significantly reducing labeling effort and enhancing model generalization.

Radical Technologies May 2024 – August 2024
Research & Analytics Intern *Pune, MH*

- Integrated AI-driven financial advice using **OpenAI's GPT-4 model**, providing personalized insights on spending and saving.
- Designed a **responsive UI** ensuring seamless user experience, enhancing user satisfaction and reducing bounce rates.
- Integrated data storage and API for secure handling of financial data, ensuring compliance with security standards.
- Enabled **real-time financial health scoring**, offering dynamic suggestions, leading to better financial habits.

Leadership Experience

Forget Me Not—Tech Lead | React, Django, PostgreSQL, Stripe API, AWS, DRF   Sep 2025 – Present

- **Architected** and led a layered companion platform, measured by a **React Native** client exchanging **JSON** with versioned **Django REST Framework (DRF) APIs** over **Django ORM → PostgreSQL** running on **AWS**, by defining Presentation/Business/Persistence/Database boundaries, implementing DRF viewsets/serializers, and standing up an operational **Django Admin** back-office.
- **Implemented** identity, authorization, and API hardening, measured by **100%** of protected routes enforced via **Clerk** sessions and **RBAC** with automated tests, by wiring **DRF authentication**, custom permission classes and middleware, request validation/pagination, and endpoint rate-limiting.
- **Built** end-to-end scheduling and commerce pipelines, measured by durable **Session/Availability/Calendar/Booking, Invoice**, and Subscription state transitions persisted in **Postgres**, by exposing **REST flows** (create/confirm/cancel) and integrating **Stripe via webhooks**, idempotent handlers, and transactional updates.
- **Integrated** safety, communications, and reliability services, measured by automated **background-check, geofence alert, push notification**, and email events emitted from API workflows, by implementing DRF service adapters to **Certn, Google Maps (geofencing/SOS), Expo Push, and Resend**, with **audit logs, retry queues, and CI/CD review gates** to maintain robustness.