

ASHRAY SIKKA

Toronto, ON, Canada | (647) 836-0764 | ashray15.sikka@gmail.com

[LinkedIn](#) | [GitHub](#)

SUMMARY

Python backend developer focused on production REST APIs with Django REST Framework, SQLAlchemy, and PostgreSQL. Recent work includes full-stack PWAs with React and LLM integration, deployed and running in real use. Comfortable owning a feature end to end, from schema design to CI/CD.

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript, C++

Backend & API: Django, Django REST Framework, FastAPI, REST API, SQLAlchemy ORM, Alembic, Pydantic, JWT authentication

Frontend: React, Vite, PWA (service workers, push notifications), HTML, CSS

Databases: PostgreSQL, MySQL, MS SQL Server, SQLite

Data & AI: Pandas, NumPy, ETL pipelines, LLM API integration (Anthropic Claude, Gemini, OpenAI)

DevOps & Tools: Docker, Git, GitHub Actions CI/CD, pytest, Render, Vercel, Neon, Stripe, Streamlit

Practices: Agile/Scrum, OOP, microservices, test-driven development, code review, API Design

PROJECTS

PCOS Tracker | *Python, Django REST Framework, React, Vite, PostgreSQL, Claude API, Docker*

- Built a full-stack health-tracking PWA with a Django REST Framework backend and a React + Vite frontend, deployed live on Render and Vercel against a managed PostgreSQL database.
- Integrated the Anthropic Claude API to generate personalized meal and exercise plans, tuning max_tokens and request scope to stay within memory limits on constrained hosting.
- Implemented DRF TokenAuthentication for cross-origin auth, shipped an installable PWA (manifest, service worker, generated icons) working on iOS Safari, and ran the build across 25 GitHub issues over 6 milestones.

Sleep Diary PWA | *Python, Django REST Framework, React, Vite, PostgreSQL, SendGrid*

- Built a clinical sleep-diary PWA implementing the CSD-M instrument (22 fields) with a math engine computing derived sleep metrics (TST, TIB, sleep efficiency, WASO).
- Developed email OTP signup via SendGrid, a calendar-driven entry system, a metrics dashboard with trend charts, PDF report export with clinician email delivery, and morning push reminders via a scheduled cron job.
- Deployed backend on Render and frontend on Vercel with GitHub Actions CI/CD, structured across 24 GitHub issues.

CareTrack API | *Python, FastAPI, SQLAlchemy 2.0, PostgreSQL, Alembic, JWT, Docker, pytest*

- Built a production-style healthcare REST API from scratch with async SQLAlchemy 2.0, Pydantic v2 validation, and JWT authentication using bcrypt.
- Designed a relational schema across User, Patient, Provider, Care Plan, and Appointment models with Alembic-managed migrations against PostgreSQL.
- Implemented full CRUD endpoints with role-based access patterns, a 26-test pytest suite in GitHub Actions CI/CD, and Docker deployment on Render.

MedScan AI | *Python, Django, Claude Vision API, Pillow*

- Built an AI radiology imaging platform where clinicians upload X-rays, CT, and MRI scans linked to patient records and receive structured diagnostic reports from the Claude Vision API, covering impression, per-finding severity, confidence score, and recommendation.
- Engineered a Django ORM schema across 3 models (Patient, Scan, Report) with a services layer handling base64 image encoding, MIME detection, and structured API prompting, with full history tracking via Django admin.

Urban Spark | *Python, Django, PostgreSQL, Stripe, pytest, GitHub Actions*

- Co-built a full-stack restaurant reservation and management system (team of 3) with 6 user roles, reservation conflict detection, cancellation-fee logic, loyalty points, delivery-driver assignment, and Stripe payment integration.
- Wrote a 370+ test pytest suite with GitHub Actions CI/CD, resolving timezone-sensitive failures by aligning UTC and local-time handling across views and tests.

EXPERIENCE

Senior Project Coordinator | Bayshore Healthcare, Toronto

Nov 2023 - Present

- Translated business requirements into technical specifications for backend systems, serving as the primary liaison between engineering, finance, and operations.
- Built a Power Automate workflow detecting version changes on a shared Excel schedule, with UTC-to-Eastern timezone conversion and conditional approval/notification routing based on defined time windows.
- Reviewed system workflow designs with backend engineers, validated data flows against compliance requirements, and identified edge cases during post-deployment testing of the MBC and OBA apps.

eClinical Implementation Specialist | Axiom Real-Time Metrics, Toronto

May 2022 - Nov 2023

- Configured clinical study workflows, forms, and validation logic on internal eClinical platforms (eBuilder) across staging, QA, and production environments.
- Executed system and user acceptance testing, documented defects with reproduction steps, and coordinated resolution with development teams.
- Translated clinical study protocols into platform configurations, bridging clinical operations and engineering.

Software Developer & Project Lead | Humber College, Toronto

May 2020 - Aug 2020

- Designed and implemented backend logic for a project management simulation tool with randomization algorithms for scenario testing.
- Created JSON configuration files to drive application behavior and led a team of 8 to deliver the project in a remote academic setting.

Software Developer | Larsen & Toubro, New Delhi

Jun 2018 - Aug 2018

- Optimized C++ code for intelligent relay systems (MCC-MCOMP), improving operational efficiency by 15%.
- Tested and debugged C++ modules for relay control systems, reproducing edge-case failures and documenting fixes with the engineering team.

Software Developer | Insphere Solutions, New Delhi

Aug 2017 - May 2018

- Refactored slow C++ and Python data-processing routines, cutting runtime on large input files by roughly 40% by removing redundant loops and reducing repeated file reads.
- Containerized Python and C++ services with Docker for consistent builds across development and production, and packaged batch data-processing scripts to run reliably outside the main application.

Software Engineer | RailTel Corporation of India, New Delhi

Jun 2017 - Aug 2017

- Wrote and tested C++ utilities to standardize configuration across development and production machines, reducing environment-specific setup errors.
- Built a temperature monitoring system using DS18B20 sensors and Arduino for telecom infrastructure.

EDUCATION

Certificate, Python Backend Web Development | University of Alberta, Edmonton, AB (Sep 2025 - Expected Jun 2026)

Bachelor of Technology, Instrumentation & Control Engineering | Bharati Vidyapeeth's College of Engineering, New Delhi (2015 - 2019; WES-evaluated: Canadian 4-year Bachelor's equivalent)

Project Management | Humber Institute of Technology and Advanced Learning, Toronto, ON (Jan 2020 - Aug 2020)

CERTIFICATIONS

Oracle Java Core | Udemy Python Bootcamp (2025) | Udemy C++ Bootcamp | LinkedIn Learning: Agile Foundations