Sahil Kamal

Levittown, NY | 516-534-6586 | sahilkamal.dev@gmail.com

linkedin.com/in/sahilkamalny | github.com/sahilkamalny | sahilkamal.dev

EDUCATION

Relevant Coursework: Data Structures and Algorithms, Software Engineering, AI and Machine Learning, Database Systems, Operating Systems, Computer Networking, Discrete Math, Linear Algebra

Farmingdale State College   **Jan 2025 – Dec 2026 (Expected)**
B.S. in Computer Science | Dean's List   *Farmingdale, NY*
Nassau Community College   **Jan 2023 – Dec 2024**
A.S. in Computer Science | Magna Cum Laude, GPA: 3.8   *Garden City, NY*

TECHNICAL SKILLS

Programming Languages: JavaScript (ES6+), TypeScript, Python, Java, SQL, C, C++, F#
Frameworks & Libraries: React, Next.js, Node.js, Django, Flask, Spring Boot, React Native, Tailwind CSS, JavaFX
Developer Tools & Platforms: Git, Docker, AWS, GitHub, Vercel, Vite, Stripe, Figma
Databases: PostgreSQL, Redis, Firebase (Firestore), Azure SQL, MongoDB
Practices & Productivity: Agile/Scrum, CI/CD, Test-Driven Development (TDD), Microsoft Office (Excel, Word, PowerPoint)

EXPERIENCE

Ax2 Technologies   **May 2025 – Aug 2025**
IT Security Intern   *Mineola, NY*
- Discovered and remediated a high-severity **Insecure Direct Object Reference (IDOR) vulnerability** in a REST API through automated endpoint analysis, securing sensitive Stripe payment data for **125+ clients**
- Developed modular PowerShell automation scripts for compliance auditing, reducing weekly manual reporting by **70%** (5+ hours/week)
- Built an automated endpoint hardening pipeline to enforce security policies across 75+ nodes, cutting vulnerability exposure window by **33%**

Nassau University Medical Center   **Jun 2024 – Aug 2024**
Software Engineering Volunteer   *East Meadow, NY*
- Engineered a Python-based patient verification system integrated with an SQL database to automate identity and appointment validation, processing **200+ daily check-ins** and reducing verification time by **90 seconds per patient**
- Implemented 12 data validation rules with comprehensive error handling, unit tests, and escalation workflows using iterative Agile development, decreasing check-in errors by **15%** in a high-volume clinical environment
- Deployed the solution to 8 pharmacy staff members; system remains in active use **over 1 year** post-deployment

PROJECTS

Relearnable – Full-Stack AI Learning Platform | *Next.js, TypeScript, PostgreSQL* | Live | GitHub   **Nov 2025 – Present**
- Architected and deployed a production educational SaaS serving **100+ active users**, handling **1300+ AI-generated assessments** using Google Gemini at **99.9% uptime**
- Engineered a Knowledge Correction Engine using Retrieval-Augmented Generation (RAG) pipelines and vector embeddings to detect user misconceptions and adaptively rebuild their understanding through targeted curriculum trees, improving user placement test scores by **40%**, validated by educators who discovered gaps in their own expertise
- Cut API costs by **30%** and improved response times by implementing a hybrid caching strategy (Redis + PostgreSQL) for high-frequency queries

Tratlus – AI Travel Planning Web App | *React, TypeScript, Firebase* | Live | GitHub   **Oct 2025 – Nov 2025**
- Developed an AI travel system generating personalized itineraries in **under 30 seconds** by capturing user preference data across destinations, activities, interests, and constraints
- Integrated RESTful Google Maps and Calendar APIs with non-blocking async workflows to enable automatic scheduling, reducing manual planning time by **60%**
- Implemented background conflict detection and event regeneration, reducing scheduling overlaps by **67%**

ActuallyFeed – Full-Stack Donation Platform | *Next.js, TypeScript, Stripe* | Live | GitHub   **Jun 2025 – Sep 2025**
- Built a donation platform integrating Stripe webhooks for an international humanitarian organization, **quadrupling donation volume** to **250+** and reducing transaction completion time by **80%**
- Designed an interactive geospatial tracker visualizing global food delivery operations across multiple countries achieving **50%** faster load times via hardware-accelerated CSS

FlavorBot – AI Recipe Generator (RamHacks 2025 Winner) | *Java, JavaFX, Azure SQL* | GitHub   **Apr 2025 – May 2025**
- Won **"Best Use of AI/ML - 1st Place"** at RamHacks 2025 (Farmingdale State College Hackathon)
- Developed an AI-powered recipe generator creating **400+ recipes** for users while handling **20+ dietary constraints** through intelligent OpenAI prompt engineering
- Designed an iterative LLM refinement interface, reducing recipe revision cycles by **35%** through user testing

Kairo – Interactive REPL OS Shell | *Python* | GitHub   **Sep 2024 – Dec 2024**
- Engineered a custom REPL shell with a recursive descent parser supporting pipe operations (|) and **50+ chainable commands**
- Built a type inference engine with automatic type conversions, decreasing runtime errors by **25%** across 18 beta testers