Silin Raj Gupta

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EDUCATION

University of Waterloo   Sep 2024 – Present
Bachelor of Computer Science, Honours, Co-op

SKILLS

Languages: Python, Java, C, C++, C#, Racket, Lisp, Scheme, JavaScript/TypeScript, HTML/CSS, SQL
Frameworks: React, Next.js, Django, Flask, FastAPI, GraphQL, Tailwind CSS
ML/AI: TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy, LangChain
APIs/Integrations: OpenAI, Google Gemini, Spotify, Twilio, ElevenLabs, Perplexity, Grok
DevOps & Cloud: Git, Docker, Linux, Vercel, Render, AWS EC2, CI/CD, Microsoft Azure, n8n

PROFESSIONAL EXPERIENCE

PolicyAdvisor ⧉   May 2025 – Aug 2025 | Toronto, ON
Software Engineer Intern
- Developed, tested, and debugged a Next.js + Python (FastAPI) proposal-automation platform powered by Google Gemini API; accelerated processing from 5–6 hrs → 2–5 mins with 99%+ accuracy across 10+ carriers, driving ~$35,000 in annual operational savings.
- Built Life Insurance Replacement Declaration generator with real-time HTML editing, DocuSign integration, and SMTP notifications.
- Orchestrated a 24/7 AI voicebot (n8n + ElevenLabs + Twilio + Google Calendar) that handled client calls and auto-scheduled callbacks, reducing missed leads by 40%.
- Designed an automated blog QA pipeline using Perplexity, Grok, and OpenAI APIs across 5 checkpoints, generating polished HTML review reports.
- Spearheaded a visitor insurance sales platform (vIQ ⧉) by leading a cross-functional team; launched in 2 weeks, integrating 10+ carrier APIs and intelligent caching.

Modulus Systems ⧉   Apr 2024 – Jun 2024 | New Delhi, India
Software Engineer Intern
- Developed predictive AI models using Python and Scikit-learn, reducing customer churn by 20%.
- Executed digital marketing campaigns with Google Analytics, driving 1,000+ monthly visitors and engineered ML pipelines.

Mentors Ethicare ⧉   May 2023 – Aug 2023 | New Delhi, India
Software Engineer Intern
- Constructed a HIPAA-compliant telemedicine platform development using Python and Flask, accelerating virtual care access by 40%.
- Engineered MySQL database schemas featuring optimized indexing, cutting patient record retrieval time by 250ms and supporting 80 concurrent users with zero performance degradation during peak hours.

PROJECTS

Muse Sketch Studio [Replicate AI Hackathon Winner] ⧉ | *React.js, TypeScript, Node.js, Replicate API*
- Built complete AI fashion workflow transforming text prompts into runway videos through a 5-step pipeline.
- Integrated Google nano-banana and Kling v2.1 models via Replicate API for professional fashion sketches and video generation.
- Developed responsive React/TypeScript frontend with real-time generation tracking and downloadable outputs.

Moosic - AI Playlist Generator ⧉ | *React.js, Spotify API, OpenAI API, Tailwind CSS, Vercel, Render*
- Launched a website generating 100+ playlists weekly by combining Spotify and OpenAI APIs for playlist creation.
- Built seamless Spotify API integration for authentication, playlist creation, and top song retrieval.
- Deployed a scalable architecture (Render backend + Vercel frontend) with 100% uptime.

CompareIQ – Document Intelligence Engine ⧉ | *Next.js, Python, Google Gemini API, AI Automation*
- Built an intelligent PDF parsing engine for insurance policy comparison, enabling 99 percent faster data extraction.
- Backbone of proposal automation now used internally by PolicyAdvisor.

vIQ - Multi-Carrier Visitor Insurance Platform ⧉ | *Next.js, TypeScript, API Integration*
- Developed a consumer-facing web platform integrating 10+ insurance carrier APIs.
- Recognized internally as the most complex intern-led project, enabling real-time pricing with intelligent error-handling and caching.
- Powers PolicyAdvisor's visitor insurance sales growth.