

# Satvik Adyanthaya

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## EDUCATION

### University of Rochester, Simon Business School

M.S. Business Analytics | Focus: Competitive Strategy, Generative AI, Macroeconomics

- Merit Scholarship Recipient | Member: Simon Life Sciences Club

Aug 2025 – Dec 2026

Rochester, NY

### Amity University

B.Tech Biotechnology | Concentration: Business Management | First Division

Aug 2021 – Jul 2025

Mumbai, India

## TECHNICAL SKILLS

**Programming:** Python, SQL, R, JavaScript, TypeScript, HTML/CSS, Bash, Shell Scripting

**AI & Machine Learning:** PyTorch, TensorFlow, LLM Orchestration (Claude, Gemini, GPT-4), RAG Architecture, LangChain/LangGraph, AWS Bedrock & SageMaker, NLP, Hugging Face, Multi-Agent Systems, Fine-Tuning, Embeddings

**Data & Analytics:** Pandas, NumPy, Scikit-learn, Tableau, Power BI, ETL Pipelines, A/B Testing, Statistical Modeling, Monte Carlo Simulation, Regression Analysis, Time Series Forecasting

**Biomedical & Life Sciences:** Genomic Data Pipelines, Drug Discovery Workflows, Biomedical NLP, UMLS/MeSH Ontologies, PubMed & Clinical Trial Data Mining, Entity Extraction (Genes, Proteins, Pathways)

**Development:** React, Next.js, FastAPI, Node.js, Neo4j, PostgreSQL, ChromaDB, MongoDB, Redis, Docker, Kubernetes, REST APIs, GraphQL, Git, CI/CD

**Cloud & Infrastructure:** AWS (Bedrock, SageMaker, Lambda, S3, EC2, API Gateway), GCP (Cloud Run, BigQuery), Vercel, Microservices, System Design

## TECHNICAL PROJECTS

### GenUp – Biomedical Discovery Platform | LangChain/LangGraph, Neo4j, ChromaDB, FastAPI, Python

2025 – Present

- Architecting AI-powered hypothesis generation platform with 7 specialized agents for automated literature synthesis, entity extraction (genes, drugs, pathways), and evidence-based discovery across PubMed and clinical trial databases
- Engineered hybrid RAG pipeline combining Neo4j knowledge graph with ChromaDB vector search, plus Monte Carlo simulation engine for probabilistic clinical outcome modeling

### Strategic Foresight Platform | AWS Bedrock, Python, FastAPI, PostgreSQL, Claude API

2025 – Present

- Architecting enterprise-scale scenario planning system with 7 AI agents powered by Claude and Llama 70B for automated strategic intelligence across defense, energy, healthcare, and finance verticals
- Engineered multi-model orchestration layer with dynamic routing, automatic failover, and cost optimization – reducing API spend by 40% while maintaining output quality

### ArchDisc – AI Design Platform | React, Three.js, Node.js, Gemini API, WebGL

2025 – Present

- Developing professional-grade platform unifying CAD, BIM, and VFX workflows with AI-powered 3D generation from natural language input
- Built procedural geometry engine generating architectural models with 350+ components including structural systems and facade assemblies

### Sports Decision Intelligence Platform | Next.js, FastAPI, PostgreSQL, Gemini 2.0, Redis

2025 – Present

- Building Bloomberg Terminal-inspired analytics platform – real-time squad valuation, UEFA FFP compliance, and salary cap monitoring with alerts
- Developing RAG-powered scouting intelligence using Gemini 2.0 with pgvector for semantic querying across performance metrics and transfer data

## PROFESSIONAL EXPERIENCE

### Technical Assistant, University IT

University of Rochester

Sep 2025 – Present

Rochester, NY

- Providing front-line technical support to 200+ campus users; maintaining 95%+ first-contact resolution rate across cross-functional IT teams

### Project Lead, Research & Development

Organic Recycling Systems

Jan 2025 – Jun 2025

Mumbai, India

- Directed 2 sustainability R&D initiatives achieving 15% efficiency gain in waste-to-energy conversion; delivered executive briefings informing investment strategy

### Founder & Developer, GroveCart

E-Commerce Platform

Oct 2023 – Apr 2024

Mumbai, India

- Launched full-stack e-commerce platform (1,000+ SKUs) with AI-powered chatbot; achieved 20% month-over-month user growth

### Research Intern, Drug Development R&D

Glenmark Pharmaceuticals

Jun 2024 – Jul 2024

Mumbai, India

- Executed experimental design and statistical analysis supporting active drug development programs across multiple therapeutic areas

## CERTIFICATIONS & LEADERSHIP

**Certifications:** Google Project Management Professional, Industrial Biotechnology

**Leadership:** Vice President, Simon Entrepreneurship Association (Events, Community Outreach & Engagement)

**Languages:** English (Fluent), Hindi (Native), Spanish (Conversational), Tulu, Marathi