Victor Jimenez

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Education & Awards

New Jersey Institute of Technology — Newark, NJ

B.S. Computer Science, Minor in Applied Statistics — *September 2023 – May 2027*

- **GPA: 3.56/4.0**; Albert Dorman Honors Scholar; **Organizations:** SHPE, ColorStack, NSBE, HISPA
- **Awards: $8,000 Innovation & Entrepreneurship Fellowship** (stipend and tuition support); **1st Overall, HackNJIT 2024**
- **Coursework:** AI-Assisted Software Eng., Machine Learning, Physical AI, Data Structures & Algorithms, Linear Algebra

Skills

Languages: Python, SQL, C/C++, Bash, Java, TypeScript/JavaScript, HTML/CSS

AI/ML: Google ADK, Microsoft Foundry, RAG, PyTorch, scikit-learn, Claude Code, Codex, Github Copilot

Backend & Data: FastAPI, Flask, REST APIs, AlloyDB, pgvector, SQLite, Pandas, NumPy

Development Tools: Git, GitHub Actions, Docker, Google Cloud, Linux, SLURM, React, Next.js

Experience

Johnson & Johnson — May 2026 – August 2026

AI / Data Science Intern, Drug Safety — *Raritan, NJ*

- **Built an end-to-end AI application on Google Cloud Platform (GCP)**, turning a manual preclinical-to-clinical safety-mapping process into a conversational workflow with traceable results for scientists.
- Designed the AI architecture with **Google ADK and multi-stage RAG**, orchestrating agent tool calls for semantic similarity search with pgvector and mapping retrieval to ground Gemini explanations in authoritative data.
- Engineered a **modular, object-oriented FastAPI backend with REST APIs** connecting a Next.js review interface to AlloyDB, separating application responsibilities into reusable components.
- Reverse-engineered **3 Java/Spring repositories** and built **Pandas/SQL pipelines** to reconcile biomedical data conflicts, converting legacy mapping outputs into reusable datasets.

NJIT Student Center of Innovation and Entrepreneurship — August 2025 – May 2026

Founder / AI Researcher – Wearable AI — *Newark, NJ*

- Built a **wearable from scratch** with motion sensors, Python processing, and **local posture inference on a receiving computer**.
- Developed calibration collecting **10,000+ motion readings in under three minutes** to fit a **wearer-specific posture classifier**.
- Streamed predictions from **Flask/Socket.IO to React** with confidence, alerts, and **SQLite-backed session analytics**.
- Led **four device revisions** informed by **20+ clinician and potential-user interviews** through **NSF I-Corps Propelus**.

NJIT Honors Summer Research Institute (HSRI) — May 2025 – July 2025

AI Research Fellow – Deep Learning Model Analysis — *Newark, NJ*

- Used **PyTorch analysis tooling** to investigate how **recurrent neural networks represent modular arithmetic**.
- Configured **Python/Bash on NJIT's HPC cluster**, resolving dependencies, and used **SLURM GPU allocation** to execute a **20,000-epoch model training run**.
- Presented findings on **compact RNN structures that preserve arithmetic-task behavior** at NJIT's research symposium.

Projects

3rd Place, Microsoft LEAD Hackathon | AI Purchase Intent Validator

- Interviewed **Mastercard professionals about mistaken purchases and chargeback risk**, translated their needs into an **AI commerce proposal approved by EY Engineers**, and scoped the build with **Microsoft engineers**.
- Led development of a **Microsoft Foundry agent prototype** that clarifies purchase requests and requires customer approval for exceptions, adding an AI layer to Mastercard's open-source purchase-authorization framework.

1st Place AI & Analytics, HackHERS | Multimodal Conversation Analysis

- Combined **diarized speech and computer-vision signals** in Gemini for call highlights and follow-up actions.
- Aligned speech, vision, and AI outputs in **SQLite/Flask**, using async fallbacks to keep live transcripts responsive.

Best Security, HackRU | ML-Assisted Spatial Neglect Assessment (3S-v2)

- Digitized a published spatial-neglect assessment with **Flask routes, participant/session handling, and Python scoring**.
- Computed **left/right and page-/string-centered omission features** for the team's **PyTorch assessment prototype**.

1st Place Fintech, HackNYU | Quantum Market Simulator

- Built **historical-market data pipelines** using prices, returns, trading activity, and volatility to support stock-price simulation and calibrate quantum-generated results against historical trends.

All-NBA Selection Classifier

- Compared **logistic regression, random forest, and XGBoost** on **9,663 player-seasons** with a **2.74%-positive target**, using training-fold SMOTE and three-fold stratified cross-validation.
- Logistic regression scored **0.984 ROC-AUC and 94% recall** on a **1,933-record stratified historical holdout**.