Giovanni Vitale

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Education

Stony Brook University | 3.97/4.0 GPA — Expected May 2027

Bachelor of Science in Computer Science (Honors) and Applied Mathematics and Statistics — New York, NY

- **Relevant Coursework:** Object-Oriented Programming, Discrete Math, Data Structures, Algorithms, Programming Languages, Linear Regression Analysis, Data Analysis, and Computing and Programming in AMS

Experience

Software Engineer Intern — May 2025 – Aug 2025

Acadia Analytics — New York City, NY

- Engineered a modular Python backtesting framework to process and analyze over six months of historical market data, creating the core infrastructure for validating trading algorithms
- Authored comprehensive technical documentation for a proprietary trading system, standardizing development workflows and increasing the team's weekly testing output by **40%**
- Optimized existing model code, resulting in a **30%** reduction in computation time, thereby accelerating the backtesting and **software development life cycle**.

Undergraduate Teaching Assistant — Aug 2025 – Present

Stony Brook University — New York City, NY

- Mentored 30+ students in weekly lab sections on core Java OOP principles, including polymorphism, inheritance, and data abstraction, leading to a **15%** improvement in average assignment scores compared to previous semesters.
- Evaluated and graded over **30+** weekly programming assignments, providing detailed, constructive feedback on code quality, style, and algorithmic efficiency

Projects

Bionic Reading | JavaScript, HTML, CSS, JSON, Chrome Extension APIs, DOM Manipulation

- **Won the SBU Grace Hopper Hackathon** for a Bionic Reading Chrome extension that enhances digital reading accessibility for individuals with dyslexia and ADHD.
- Leveraged **JavaScript**, **HTML**, and **CSS** to implement Bionic Reading Mode, dynamically bolding word segments and accelerating reading speed by over **15%**.
- Utilized **Chrome Extension APIs** and **DOM Manipulation** to create a seamless and responsive user experience

Seawolf Course Finder | Python, Flask, scikit-learn, PyTorch, BeautifulSoup4, JavaScript

- Developed a full-stack **AI** recommendation engine that processes 4000+ university courses using **TF-IDF vectorization** and **cosine similarity**, achieving **95%+** relevance accuracy through confidence score filtering, resulting in an intuitive course discovery system for students
- Engineered **scalable** web scraping infrastructure using **BeautifulSoup** and concurrent processing to extract structured data from university catalogs across **60+** departments

Momentum Trading Strategy | Pine Script, SMA, EMA, Trading View

- Generated **$50k** in revenue by developing and licensing a proprietary trading algorithm that utilized a **dual-smoothed range filter** to effectively navigate market volatility

Awards

- Hackathon Winner - Stony Brook University HopperHacks
- Datathon Winner (Financial Analysis Track) - Stony Brook University Datathon
- Top 5% Nationally (AIME Qualifier) - American Mathematics Competition Certificate of Distinction
- Overwatch: (Rank 1 North American Tank Player) - Consistently Top 10 for 10 Seasons

Technical Skills

Languages: Python, JavaScript, Java, TypeScript, HTML, CSS, R, SQL

Frameworks: React, TailwindCSS, Angular, Spring Boot

Libraries: NumPy, Pandas, Matplotlib, scikit-learn, TensorFlow

AI: Generative AI, Agentic AI, Prompt Engineering, Coding Agents