

# Nicholas Stamatakis

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## Education

### Stony Brook University Honors College

Stony Brook, NY

*B.S. in Computer Science and Applied Mathematics & Statistics*

Aug. 2022 – May 2026

- **Specialization:** Artificial Intelligence and Machine Learning
- **GPA:** 3.85/4.00 | Dean's List | Academic Achievement Award | Founder & VP of Web Development Club

## Work Experience

### Amazon.com, Inc.

New York, NY

*Software Development Engineer Intern*

May 2025 – Aug. 2025

- Designed a serverless web-scraping pipeline with **Scrapy** on **AWS Lambda**, expanding coverage by  $\sim 27\times$ .
- Integrated **Claude 3.7 Sonnet** via **AWS Bedrock** for NLP, yielding 95.35% accuracy on backtested datasets.
- Automated infrastructure deployment with **AWS CDK**, managing 100K+ JSON files in **S3**.
- Orchestrated a **Step Function** state machine with integration tests to validate the end-to-end CI/CD pipeline.
- Instrumented 10+ **CloudWatch** dashboards, monitoring program health and error metrics.

### West Palm Test Prep

West Palm Beach, FL

*Software Engineer Intern*

Oct. 2023 – Apr. 2025

- Launched **whiz.study**, a full-stack preparation platform serving 75,000+ users using a **TurboRepo** monorepo with **Next.js**, Expo (React Native), and Express across 6 apps with a 93-model PostgreSQL schema via Prisma ORM.
- Built an agentic AI tutor using **Vercel AI SDK**, OpenRouter and a Bun WebSocket server.
- Engineered an adaptive study plan engine (“Road to 1600”) that builds personalized lesson sequences using **topological sorting**, all as pure functions with 1,000+ automated tests.

### Zebra Technologies

Holtsville, NY

*Software Engineer Intern*

May 2024 – Aug. 2024

- Engineered sentiment analysis system using Large Language Models, processing 200+ monthly feedback entries.
- Implemented semantic search over 8K+ JIRA tickets using **Retrieval-Augmented Generation (RAG)**.
- Optimized a **Qdrant Vector DB** for efficient storage of System Problem Reports; reduced data retrieval time by 70% and enhanced report generation for 20,000 performance entries.

### Stony Brook University

Stony Brook, NY

*Data Structures & Algorithms Teaching Assistant*

Aug. 2023 – May 2024

- Created 50+ practice problems, led exam reviews, and proctored for 200+ students. Led weekly 1-hour recitations.

## Research & Publications

### University of Connecticut

Storrs, CT

*Adversarial Machine Learning Researcher*

May 2023 – Oct. 2023

- *“Busting the Ballot with Commodity Printers: Voting Meets Adversarial Machine Learning”* – **ACM CCS 2025**.
- Designed a support vector machine to audit 10,000 ballots for the state of Connecticut, achieving 99.5% validation accuracy.
- Implemented adversarial machine learning techniques to perform attacks on the model, reaching a detection rate of 98% for adversarial examples.
- Constructed advanced image registration software using Python and OpenCV; aligned 10,000 printed and scanned ballots, improving accuracy and reducing manual verification time by 85%.

## Skills

**Programming:** Python, TypeScript, Java, JavaScript, C, SQL, OCaml, HTML, CSS

**Cloud & DevOps:** AWS (Lambda, Bedrock, CDK, S3, Step Functions, SQS, CloudWatch), Docker, Git, CI/CD, Linear

**Web Frameworks:** Next.js, React.js, Express.js, Node.js, FastAPI, Tailwind CSS, Shadcn, REST APIs

**Databases & Data:** PostgreSQL, MongoDB, Qdrant (Vector DB), Kafka, Prisma ORM, PgAdmin, Scrapy

**AI & ML:** OpenAI API, Vercel AI SDK, RAG, HuggingFace, TensorFlow, NumPy, Sklearn, Pandas, OpenCV, PIL

**Languages:** English (Native), Greek (Native), Italian (Conversational)

## Extra-Curricular Activities

**Athletics:** Captain of Intramural Basketball Team; SBU Ballroom Dance Team.

**Community:** Chanter at Greek Orthodox Church; Active member of Greek & Cypriot Heritage Club.