

HENRY JIANG

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Education

Georgia Institute of Technology | Atlanta, GA

Dec 2026 (Expected Grad)

- B.S. in Computer Science, HKN Scholar

GPA: 3.7

Skills

Languages: Python, Java, JavaScript, C, C#, C++, HTML/CSS, R

Certifications: CompTIA ITF+, CompTIA Security+

Technologies: JUnit, JIRA, Docker, Firebase, Tensorflow, Pytorch, OpenCV, Pandas, Blender, Splunk, Node.js

Experience

NASA

Jun 2024 – Aug 2024

Systems Security Intern

Kennedy Space Center, FL

- Strengthened cybersecurity compliance by completing SSP and SCP revisions for 3 NE-XC sectors, by analyzing NIST/FISMA requirements and drafting 20+ PO&AMs to address identified vulnerabilities.
- Enabled branch's ahead-of-schedule security audit completion, delivering compliant documentation 3 months early.
- Enhanced real-time threat detection capabilities by designing and implementing 4 Splunk dashboards for Launch Control Center security monitoring.

Fung Research Group

May 2023 – Present

Undergraduate Research Assistant

Atlanta, GA

- Advanced materials discovery contributing to 2 graph neural network models (MatDeepLearn and MatStructPredict) for atomic structure prediction, enabling predictions of thousands of crystal structures with over 90% accuracy.
- Achieved 40% match rate while including lattice parameter optimization by engineering a particle swarm optimization algorithm integrating PyTorch, ASE, Pyswarms, and Mattersim, outperforming other global optimizers..

Inchtone Global LLC

May 2023 - Aug 2023

Backend Software Development Intern

Remote

- Accelerated intern team productivity by 30% by leading code reviews for 3 teammates and establishing weekly sprint coordination, ensuring on-time delivery of 8+ project milestones throughout 3-month internship.
- Eliminated manual data transfer for 50+ sales team members by architecting Apollo.io to Bitrix24 CRM integration using webhooks and REST APIs, automating sync of 1,000+ leads weekly and reducing data entry time by 15 hours per week.
- Built scalable web scraping infrastructure that extracted and validated 1000+ data points daily using Python and Selenium.

Projects

Stock Market Bubble/Crash Forecast AI | https://github.com/henryyjiang/bubble_predictor

- Validated market crash prediction model by accurately forecasting October 10th's 800-point drawdown, achieving 76% and 91% accuracy with TIDE and Random Forest models trained on 20 years of historical market data..
- Expanded forecasting system beyond bubble detection to predict weekly returns across 11 sector ETFs, 3 major indices, and VIX volatility.
- Engineered proprietary training dataset combining real-time news sentiment scores with ETF performance metrics using Python web scraping, processing 10,000+ headlines to capture market psychology signals.

DARWIN: Agentic Evolving GPT | <https://github.com/henryyjiang/DARWIN#>

- Demonstrated first-of-its-kind self-evolving AI system where GPT agents iteratively modify, test, and optimize their own training code, enabling autonomous debugging and independent training optimization.
- Accelerated model development by building a live chat interface enabling GPT agents to request dataset upgrades, library installations, and architectural changes.

Automated Intersection Management for Self-Driving Cars | <https://github.com/henryyjiang/aim>

- Improved intersection safety and traffic efficiency by 40% by designing reinforcement learning system trained across 10,000+ episodes using Q-Learning and novel Double Q-Table algorithm, enabling real-time vehicle coordination through shared LiDAR and action data to improve safety.
- Developed physical self-driving car prototype with Raspberry Pi running YOLOv3-mini object detection and OpenCV lane-following algorithms, demonstrating real-world feasibility by successfully navigating test track and communicating with centralized AIM controller and responding to virtual collision hitboxes..