

HENRY JIANG

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Education

Georgia Institute of Technology

Atlanta, GA
Dec 2026 (Expected Grad)

- B.S. in Computer Science | Concentrations: Computational Media, AI
- GPA: 3.7 | HKN Scholar

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

GT Fung Research Group

May 2023 – Present

Atlanta, GA

Undergraduate Research Assistant

- Contributed to 2 graph neural network models (ActiveStructOpt and MatStructPredict) for atomic structure prediction predicting with over 90% accuracy
- Achieved 40% match rate on lattice parameter tuning benchmarks engineering novel particle swarm optimization CSP algorithm integrating PyTorch, ASE, Pyswarms, and Mattersim
- Processed 500+ crystal structures, discovering new ground truth configurations to advance materials discovery

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, 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 by designing 4 Splunk dashboards for Launch Control Center log monitoring

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 5+ project milestones throughout 3-month internship
- Automated sync of 1,000+ leads weekly by architecting Apollo.io to Bitrix24 CRM integration with webhooks and REST APIs
- Built scalable web scraping infrastructure that extracted and validated 1000+ data points daily using Python and Selenium

Projects

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

Oct 2025

- Evolutionary AI system where GPT agents iteratively modify, test, and optimize their own training code and are selected via genetic algorithm, achieving over 20% improvement to MFU and perplexity
- Enabled autonomous debugging and independent training optimization, including memory file storage for advanced reasoning and integrated Claude/OpenAI APIs for proof of concept work
- Accelerated model development with live chat interface enabling agents to request dataset upgrades, library installations, and architectural changes and for human-in-the-loop to offer suggestions

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

Sep 2025

- Validated market crash prediction model by accurately forecasting medium crash risk before 800-point drawdown on Oct 10, 2025
- Achieved 76% and 91% accuracy with TIDE and Random Forest models trained on 20 years of historical market data
- Engineered training dataset combining recent news sentiment scores with ETF performance metrics using Pandas, Tiingo, and Yfinance web scraping, processing 10,000+ headlines

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

Apr 2023

- Improved intersection safety and traffic efficiency by 40% by designing reinforcement learning system trained across 10,000+ episodes
- Developed self-driving car prototype with Raspberry Pi, YOLOv3-mini, and OpenCV lane-following algorithms, successfully navigating test track
- Enabled communication between car and centralized AIM controller, responding to virtual collision hitboxes and sharing LiDAR data to mark obstacles virtually for a zero-collision policy.