

Katherine Chang

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EDUCATION

Georgia Institute of Technology

Expected December 2026

Bachelor of Science in Computer Engineering, Minor in FinTech

Concentrations: Information Internetworks and Distributed Systems/Software Design

Relevant Coursework: Database Systems, Statistics & Applications, Finance & Investments, Computer Networking, Data Structures and Algorithms, Object-Oriented Design

SKILLS

Programming & Tools: SQL, Python, Java, Git, Tableau, Excel

Business Intelligence & Reporting: Database Management (MySQL, SQLite), ETL Pipelines, Schema Design

Communication & Leadership: Research, Cross-functional collaboration, Technical documentation, Presentation

Organizations: Rewriting the Code, Society of Women Engineers, Trading at GT, GTSF Investments Committee

EXPERIENCE

Firmware Engineer Intern

May 2025 – August 2025

Atlanta, GA

Georgia Tech Research Institute (GTRI)

- Built SQLite reporting tools aggregating 20K+ UAV data points, enabling cross-functional teams to extract actionable insights from field-testing metrics
- Collaborated with division chief to refine research presentations and documentation, aligning technical findings on radio timing protocols with strategic project goals
- Troubleshoot and tested RF amplifier systems for secure communications with SDR boards and antennas, resolving signal integrity issues in R&D environment

Operations and Programs Assistant

August 2024 – May 2025

Atlanta, GA

Advanced Technology Development Center (ATDC)

- Maintained Salesforce and Excel datasets for 50+ startups, improving reporting accuracy for investor/consumer engagement metrics and cleaning historical data
- Supported project planning and event timelines with operations manager for tech startup incubator events, strengthening startup–investor relationships and financial growth opportunities

Undergraduate Researcher

January 2024 – December 2024

Atlanta, GA

Vertically Integrated Projects Program

- Presented technical research on secure data handling and processing with AES in FPGA-based voting systems
- Developed and tested Verilog modules with AXI interface and created custom testbenches to validate encryption functionality
- Researched Direct Memory Access Controllers and implemented prototypes for faster data transfers and reduced CPU overhead

PROJECTS

QSR Firm Evaluation | *Excel, Financial Analysis, Python (matplotlib), Jupyter Notebook*

Fall 2025

- Built valuation models (DCR, dividend discount, FCFF, FCFE) for fast food firms through Excel and calculated fundamental values for investment decision-making to beat S&P return rate
- Created comparative analysis report on firm valuation and risk-return tradeoffs through studies on 10-K filings and financial statements on Domino's, McDonald's, and Wendy's annual reports
- Visualized firm growth with different sensitivities, including WACC rates, terminal growth rates, and cost of equity, in Excel and matplotlib

Growth Stock Portfolio Optimization | *SQLite, Python (pandas), Tableau, yFinance*

Summer 2025

- Analyzed \$10+ trillion equity market cap across 11 sectors with Python scripts to construct a sector-diversified portfolio and achieved 12.3% simulated annual return
- Automated a data pipeline with 99% accuracy across 110 equities, extracting 5 years of historical price data from yFinance and loading real-time market data into SQLite database
- Computed financial metrics – projected earnings, historical earnings, book value, cashflow, sales growth – to calculate Morningstar Growth Score and generate optimal portfolio weights

Formula One Race Result Analysis | *Python (pandas, Matplotlib), SQL, SSMS, Data Visualization*

Summer 2025

- Designed relational SQL schema in SSMS to integrate multi-session race results and utilize queries for database management
- Analyzed driver performance trends to identify key factors affecting race outcomes, contributions to strategic insights, driver consistency and pace improvements
- Generated graphs with Matplotlib to highlight competitive gaps and driver progression across qualifying and final results from last two seasons