

TYLER CHANG

New York, NY | (949) 531-8858 | tc3407@columbia.edu | [linkedin.com/in/tyler-chang-cc](https://www.linkedin.com/in/tyler-chang-cc) | github.com/tylerchang

EDUCATION

Columbia University

New York, NY

Master of Science (M.S.) in Computer Engineering

Expected Dec 2025

Coursework: Operating Systems, Computer Architecture, Formal Verification of Hardware and Software Systems, Advanced Logic Design

Colorado College

Colorado Springs, CO

Bachelor of Arts (B.A.) in Computer Science, *summa cum laude*, GPA: 4.0/4.0

May 2024

Coursework: Software Design, Team Mobile App Development, Macro/Microeconomics, Machine Learning, Natural Language Processing, Data Structures & Algorithms, Computer Systems, Computer Networking, Advanced Java

EXPERIENCE

Stryker

San Diego, CA

Software Engineer Intern

May 2023 - Aug 2023

- Spearheaded design and development of Apache Kafka consumer load balancer automation tool for healthcare communication with Java Spring Boot and HTML/CSS/JavaScript
- Reduced load balancing time of hospital messages from minutes to seconds with an improvement of 308%
- Strengthened skills in agile and scrum methodologies; properly documented project on internal Wiki and gave an educational presentation to Stryker's Acute Care team; received full-time return offer

Visa

Denver, CO

Software Engineer Intern

May 2022 - Aug 2022

- Developed the Test Execution Analyzer REST API with Java Spring Boot and MongoDB, saving developers 200 hours per month by automating test failure analysis processes
- Improved Visa's Global Accessibility Requirements automation tool by optimizing and refactoring English-to-Java translated testcases' logic to ensure correctness and compliance
- Assured security through functional and end-to-end testing with Karate, Swagger UI, and SLF4J logging
- Led a team of 4 interns in scrum meetings and provided technical mentorship; received return internship offer

Stout Street Capital

Denver, CO

Software Engineer Intern

Jun 2021 - Aug 2021

- Automated investor account generation from Crunchbase with Python and PostgreSQL, saving 210% of time
- Created bulk email distribution program with AWS Simple Email Service and Flask to promote news to clients

PROJECTS

Preserve - Digital Fridge iOS Application: <https://github.com/tylerchang/digital-fridge>

- Preserve helps users with food waste by creating a digital representation of a refrigerator, allowing users to import ingredients and food through barcode scanning or receipt scanning technology backed by machine learning
- Assigns shelf-life using data from the USDA and sends notifications when items are about to go bad
- Developed in Swift / SwiftUI with Google Firebase for data storage and user account authentication

Sudoku Solver Algorithm Analysis and Visualization: <https://github.com/tylerchang/sudokusolver>

- Runtime analysis and visualization of backtracking and simulated annealing algorithms to solve Sudoku puzzles
- Utilized Python and Matplotlib to generate meaningful graphical analysis and Pygame to create visualization

Networking with Microcontrollers: github.com/tylerchang/CustomNetwork/blob/main/Research%20Paper.pdf

- 3-week research project to build computer networking from scratch with microcontrollers based on the 5-layer model
- Developed a chat program with Python across an intranet of 10 Raspberry Pis and handmade network interface cards

SKILLS

Java, C, Python, Swift, JavaScript, React, HTML/CSS, SQL, Object-Oriented Programming, Git, Technical Writing, Confluence Documentation, JIRA, Cross-Functional Communication, Agile Development Life Cycle, Project Management, Computer Architecture