

NICHOLAS CHING

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Education

Columbia University

New York, NY

Master of Science, Computer Science (Software Systems Track)

Expected Dec 2025

Courses: Large-Scale Distributed Systems, Parallel Functional Programming, Computer Networks

Columbia University

New York, NY

Bachelor of Art, Computer Science, GPA: 3.8/4.0

Jan 2022 – May 2024

Courses: Operating Systems, Computer Systems, Artificial Intelligence, UI Design

City University of Hong Kong

Hong Kong, HK

Bachelor of Science, Computational Finance & Financial Technology, First Class Honors

Sep 2019 – May 2024

Courses: Data Structures, Database Systems, Python for Business

Professional Experience

Marsh

New York, NY

Summer Risk Management Associate

Jun 2023 – Aug 2023

- Assessed and presented a risk analysis report of a ride-sharing start-up, outlining key property, casualty and FINPRO risks.
- Developed a Random Forest Model with an F1 score of 0.87 utilizing the NTHSA dataset to identify key contributors to car accidents in the USA empowering data-driven policy decisions.
- Facilitated client renewal processes for clients under \$1B market cap by managing accounts, billing, and certificate requests.

Discovery Bank Ltd.

Johannesburg, ZA

Research & Development Data Analytics Intern

Jun 2021 – Aug 2021

- Authored and presented research in local and global product offerings, identifying key trends in virtual banking products that drive user engagement.
- Leveraged Python, Pandas, NumPy, and SQL to explore, clean, and process data, automating the pipeline into SQL databases and reducing manual data processing by 20 hours per week.
- Utilized machine learning models (XGBoost & Random Forest) to predict targeted binary variables.

Software Engineering Projects

Lucidity

May 2024

- Automated 95% of the financial statement modeling process, reducing the time for building Discounted Cashflow and Residual Earnings models from 10 hours to under 30 minutes, with only result validation remaining manual.
- Integrated ChatGPT-4o to explain valuations, making results accessible to non-experts with clear justifications.
- Designed and developed user interface using Flask, HTML, CSS and JavaScript.

Boop

Jan 2024

- Developed a full-stack early detection system for identifying signs of self-harm in social media text using a fine-tuned BERT model, achieving a 99.1% F1-score.
- Integrated Reddit API for real-time analysis of social media text, enabling monitoring and early detection of self-harm risk.
- Awarded the “Best Mental Health Hack” at the Columbia ADI Hackathon for innovations in mental health monitoring.

Custom Debian Scheduler

Oct 2023

- Implemented a custom Round Robin scheduling algorithm in C for Linux to enhance CPU performance on Debian.
- Programmed load-balancing for multi-core environments optimizing CPU utilization by 10%.
- Debugged code using Valgrind for memory management optimization and managed project development through Git.

Skills

Software: (proficient): C, Python, Linux, Git (familiar): Java, SQL, C++, JavaScript, HTML/CSS, PyTorch, Flask

Methodologies: Agile, Test-Driven Development (TDD), Continuous Integration/Continuous Deployment (CI/CD)

