

ZHAO, QIRUI (ERIC)

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EDUCATION

THE UNIVERSITY OF HONG KONG, FACULTY OF SCIENCE

HONG KONG

Bachelor of Science in Actuarial Science | GPA: 3.4 / 4.3

Expected graduation: Jun 2028

CS: Computer Programming (COMP1117); Programming Technologies (COMP2113)

Discrete Mathematics (COMP2121); Introduction to Data Science (COMP2501)

Math: Mathematical Methods I & II (MATH1821/2822); Financial Mathematics (STAT2902)

Statistics: Probability and Statistics (STAT2901); Mathematical Statistics (STAT3902)

Stochastic Models (STAT3903); Linear Models and Forecasting (STAT3907)

UNIVERSITY OF CALIFORNIA, BERKELEY

BERKELEY, CA

Exchange Program (non-degree), Computing and Data Science

Jun 2026 – May 2027

Summer 2026 GPA: 4.0 / 4.0 | Completed: CS 161 Computer Security (A)

CS 168 Introduction to the Internet: Architecture and Protocols (A)

Fall 2026 (in progress): CS 61B Data Structures; CS 162 Operating Systems and System Programming

CS 61C Great Ideas of Computer Architecture (Machine Structures)

SELECTED PROJECTS

PAPERWEB

INDEPENDENT PROJECT

Project Creator | AI-assisted development

Sep 2026 – Present

- Built a visual website editor with a shared document model for editable text, shapes and page components
- Implemented HTML/CSS/JavaScript export and handwriting recognition with editable correction of OCR results
- Deployed the web studio with versioned releases and rollback; iterated on layout and export behavior

SCHEDULE PLANNER

INDEPENDENT PROJECT

Project Creator | schedule.cks06971.com

Sep 2026 – Present

- Built a Berkeley course planner with searchable calendar views, calendar subscriptions and Pacific-time handling
- Integrated HTML schedules and calendar feeds; isolated private notes, retained data on refresh failures and added tests

NETWORKING AND SECURE FILE SHARING

UC BERKELEY

CS 168 / CS 161 Course Projects | Python and Go

Summer 2026

- Implemented Python traceroute with IPv4/ICMP/UDP parsing and validation of malformed or unrelated responses
- Implemented distance-vector routing and TCP socket logic, including route expiry, split horizon and connection states
- Co-developed a Go file-sharing client with encrypted storage, integrity checks, invitations and access revocation

CHINA A-SHARE MARKET MICROSTRUCTURE PREDICTION COMPETITION

ONLINE

Team Leader

Feb 2026 – Apr 2026

- Led a student team to place 51 of 164; processed 43 million training rows across 500 stocks with Polars
- Built a time-split LightGBM pipeline across five intraday regimes; compared an LSTM overlay using validation results

UCORE OPERATING SYSTEMS LABS

INDEPENDENT STUDY

Tsinghua University Online Course | C and x86 Assembly

Fall 2025

- Worked through uCore OS labs up to Lab 5, studying physical/virtual memory, kernel threads and user processes
- Used GDB breakpoints and disassembly to trace x86 boot flow from BIOS to the bootloader and ELF kernel loading

SPACE FIGHT TERMINAL GAME

THE UNIVERSITY OF HONG KONG

COMP2113 Team Project | C++ and ncurses

Fall 2025

- Co-developed a terminal shooter in a four-person team, with enemy waves, boss battles and difficulty-based leaderboards
- Used an object-oriented game architecture, state transitions, RAII smart pointers and file I/O for persistent scores

U.S. DAILY BIRTH COUNTS ANALYSIS

THE UNIVERSITY OF HONG KONG

COMP2501 Individual Project | R and R Markdown

Nov 2025

- Built a reproducible analysis of 7,670 daily birth observations from 1994–2014, joining calendar and holiday data
- Used dplyr, lubridate and ggplot2 to compare seasonal and weekday patterns through ranking heatmaps and charts

TECHNICAL SKILLS

- **Programming:** Python, C++, Java, JavaScript, HTML/CSS, R; Go through CS 161 project work
- **Tools:** Git, pandas, Polars, LightGBM, ggplot2; AI-assisted development with Claude Code and Codex
- **Portfolio:** github.com/TunaZ06971 | cks06971.com/studio | schedule.cks06971.com
- **Languages:** Fluent in English and Mandarin