BAE, Hangyeol

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EDUCATION

Hong Kong University of Science and Technology *September 2023 – June 2025 (on leave)*

- Undergraduate, BSc in Computer Science and Mathematics
- CGA: 3.85/4.30, Year 2
- Dean's List 2023-24 Fall, Spring, 2024-25 Fall, Spring

PERSONAL PROJECTS

mdBookshelf: a Personalized Learning Platform Around mdBook (2024-Present)

- Started as simple wrapper and book manager for Rust's ebook utility, mdBook.
- Recreate as a learning platform with domain-specific coding exercises, feedback, and LLM tutor.

Silakka54-HE: Ergonomic Split Hall-Effect Keyboard (2026-Present)

- Transformed keyboard PCB and firmware for magnetic switches. 30+ stars on GitHub.

Cryptocurrency Arbitrage Comparison (2018-2023)

- Developed a series of applications seeking "alpha" from cryptocurrency arbitrage.
- Involved multiple exchange API and financial data handling.
- Ported to various platforms including CLI/GUI (Python), Google Apps Script, static website, Android app, and Telegram chatbot with advanced personalization.

EXPERIENCES

Software Engineer, BKSNP *July 2025 – Present*

- Working as a full-time software engineer at BKSNP
- Recognized as Industrial Technical Personnel, a substitute form of national service.
- Maintaining Electronic Medical Record system for regional hospitals and beyond.
- Skills: C/C++, Vanilla JS, SQL, JSP, system maintenance

Undergraduate Research Assistant (UROP) *September 2024 – June 2025*

- Worked under Professor Dimitris Papadopoulos on project: *Implementation of Cryptographic Tools for Zero-knowledge proofs*
- Implemented an efficient multivariate polynomial evaluation within finite field
- Skills: C/C++, design & analysis of algorithm

Undergraduate Teaching Assistant (UGTA) *February 2025 – May 2025, September 2023 – December 2024*

- Served as UGTA for COMP 2611, a Year 2 course on computer organization
- Served as UGTA for COMP 2011, a Year 2 programming course on C++
- Assisted in assignment preparation and answering student's questions.

QT Team, KSA Research and Investment Strategy Society (KRISS), HKUST *September 2023 - November 2024*

- Researched and analysed the market using quantitative analysis and modelling, from the Korean Students' Association, HKUST.
- Implemented market data fetching and processing section for back-testing platform.

LANGUAGES

Korean (native), English (proficient), Thai (daily conversation), Mandarin (basic)

SKILLS

Programming Languages

- Python, C/C++, JavaScript (proficient)
- SQL, Java, Solidity, Pthreads, OpenMP, CUDA (intermediate)
- Google Apps Script (basic)