Bernard Teo Zhi Yi

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SKILLS AND ABILITIES

- Proficient in (modern) C++, C, C#, Java; some experience with JavaScript, Swift
- Strong algorithmic problem solving skills
- Familiar with multi-threaded programming and atomic operations, including lock-free data structure design
- Have experience with Visual Studio and Git for multiple projects

INTERESTS

- Algorithmic problem solving, data structures and algorithms, parallel programming, zero-cost abstractions, modern C++

WORK EXPERIENCE

SOFTWARE ENGINEER INTERN — JUMP TRADING LLC

June-August 2019 | C++14

- Attended four-week training programme, followed by six weeks of work on the trading platform used by all trading teams

NOTABLE COMPETITIONS

ACM INTERNATIONAL COLLEGIATE PROGRAMMING CONTEST (ICPC)

- Ranked 62nd at ACM-ICPC World Finals 2019
- Ranked 1st at ACM-ICPC Asia Yangon On-Site Regional Contest 2018
- Ranked 7th at ACM-ICPC Asia Singapore On-Site Regional Contest 2018
- Ranked 5th at ACM-ICPC Asia Jakarta On-Site Regional Contest 2017

INTERNATIONAL OLYMPIAD IN INFORMATICS (IOI)

- Bronze Medal in 2013
- Participation in 2012

GOOGLE CODE JAM

- 51st globally in 2019
- 295th globally in 2018
- 834th globally in 2017

DISTRIBUTED CODE JAM

- 155th globally in 2017
- 79th globally in 2016

SINGAPORE MATHEMATICAL OLYMPIAD (SMO)

- Silver Award for Open Category in 2013 and 2014

NOTABLE PROJECTS

CIRCUIT SANDBOX

GitHub repository: https://github.com/btzy/circuit-sandbox

Summary poster: https://btzy.github.io/circuit-sandbox-poster.pdf

May-August 2018 | NUS Independent Software Development Project | C++17

- Circuit Sandbox is an open-source desktop cross-platform (Windows, Mac, Linux) sandbox simulation game built with SDL2.0 and designed to be fast and efficient
- Consists of over 12000 lines of C++ code utilizing various C++11/14/17 features
- Implement separate simulation, rendering, and file I/O threads that almost always communicate in a wait-free manner
- Implement generation of circuit graph, and other performance optimizations

OTHER EXPERIENCE

NATIONAL OLYMPIAD IN INFORMATICS (NOI) SCIENTIFIC COMMITTEE

January-March 2017

- Design and prepare task statements, and ensure quality control of the tasks for the competition

EDUCATION

2017-present

National University of Singapore
BComp (Hons) in Computer Science
BSc (Hons) in Applied Mathematics
Double Degree Programme
Current CAP (as of June 2019):
  5.00 out of 5 (BComp)
  4.95 out of 5 (BSc)

Notable modules taken:

- CS2100 Computer Organisation
- CS2105 Intro. to Computer Networks
- CS2106 Intro. to Operating Systems
- CS3203 Software Engineering Project
- CS3210 Parallel Computing
- CS3230 Design and Analysis of Algo.
- CS3233 Competitive Programming
- CS4231 Parallel and Distributed Algo.
- MA2101 Linear Algebra II
- MA2104 Multivariable Calculus
- MA2108S Mathematical Analysis I (S)
- MA3218 Applied Algebra

2009-2014

Hwa Chong Institution
Science and Mathematics Talent Programme

SCHOLARSHIP

NUS Merit Scholarship recipient

TEACHING

Teaching assistant for
CS2030 Programming Methodology II:

- Spring 2018 (score: 4.7 out of 5)
- Fall 2018 (score: 4.8, 4.6 out of 5)

LINKS

- GitHub: @btzy
- LinkedIn: bernard-teo
- Personal Website: bernardteo.me