


Peter HU

University of Cambridge |  **Jardine Scholar**
Computer Science Part IA

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ABOUT ME

I am a Computer Science student studying at University of Cambridge. What I really enjoy is the beauty of Computer Science and how it can be applied in real life. Having used C/C++ for over a whole year, I also learn other programming languages. With the help of Open Course, I gain more knowledge myself on different kinds of field. I am open to new fields of area and enjoy exploring unknown features. Meanwhile, it's also part of my daily routine to learn more around Algorithm and Data Structure, Database, Computer Graphics etc.

EDUCATION

University of Cambridge Undergraduate in Computer Science -Merit-based, fully funded Jardine Scholarship	Oct 2022- Present
Xiamen University GPA: 3.91 / 4.0 (first term), 88/100 (the whole year) Undergraduate (First Year) in Software Engineering -Class Rep, ACM Team training.	Sep 2021-June 2022
Nanyang Model High School -Physics Rep, Leader of a research project. -Awarded ShuPing Scholarship twice	Sep 2018-June 2021

TECHNICAL SKILLS

Calculus, Linear Algebra, Discrete Math, Probability and Statistics. Abstract Algebra, Topology (basic).

Mathematics

C, C++, Java, Python, OCaml, HTML/ CSS, Latex, SQL(Postgre, SQLite, HSQL; NoSQL)

Programming

Familiar with bash/ shell and git; both Linux (MacOS) and Windows Operating System.

OOP, Digital Electronic, Database, Computer Graphics, Functional Programming (OCaml) etc

Courses

HONORS AND AWARDS

Gold Medal in Huawei Tech Arena 2022 £7000 [C and C++, Compression, Concurrent] · Responsible for implementation & improvement of LZSS. Engaging in pre-processing, serialization with teammates. · Optimization using C pointers, bitwise operators & hash tables. GPU optimization: Branch Prediction. · Multi-threading, Parallelization, Concurrent Processing. Project Blog · In a team of 4, Leading the team and communicate with other teammates.	10Oct-26Nov 2022
Top 2 Team in Mercuria Hackathon 2022 [Python, Data Analysis, Route-Planning] Using data analysis to accelerate the energy transition and reduce the carbon emissions of the maritime industry. Great Team Work, Collaboration. Networking with senior engineers, excellent undergraduate, Master and PhD students from all around the Europe.	16Dec-18Dec 2022
Jardine Scholarship , issued by Jardine Foundation Merit-based, fully-funded Scholarship during my Undergraduate at University of Cambridge	Feb 2022

PROJECTS AND ASSIGNMENTS

Database Design Project (C++) [CMU15-445 Project] Project (Github) Blog · Buffer Pool Management System, Latch, LRU · Replacement policy, Buffer Pool Manager Instance. In order to solve the concurrent problem, implement the Parallel Buffer Pool Manager. Using C++ STL, Google C++ Style Guide	Aug-Oct 2022
Computer Graphics (C++, OOP, OpenGL) [MIT6.837 Assignment] Project Blog · Ray casting, normal visualization, rendering, voxel rendering, super sampling and 3D · Huge OOP project, with 3D objects, light, camera classes. Building over 20 C++ source files from scratch. · Composite design pattern for 3D objects class hierarchy with transformation.	Jul-Sep 2022
Multifunctional Supermarket Management System (C++, OOP) Project Blog · Inheritance, polymorphism (Operator Overloading); Read/Write Files, etc	Apr 2022
Typing Game (C & EasyX) Project (Github) Blog	Dec 2021
Artificial Intelligence Stanford CS229 Project (Github) Learning required Math and Coding at the same time	
Algorithm and Data Structure (C++, Java) [MIT 6.006 Intro to Algorithm] Project (Github)	



INTEREST AND EXTRACURRICULAR ACTIVITIES

Music, Swimming, Yoga, Gym, Helping others etc. | Society Joined: Ethics in Mathematics
Economics Related Topics: Macro & Micro, Money Banking

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