


Peter HU

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

CONTACT

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 [LinkedIn](#) |  [Github](#) |  [Portfolio](#)

SKILLS

·C ·C++ ·Java ·OOP ·HTML/ CSS ·CMake ·Gdb ·bash/shell ·git ·Algorithms and Data Structure
·Database ·SQL ·NoSQL ·Latex ·Functional Programming (OCaml) ·Digital Electronic
·Python ·NumPy ·Machine Learning ·Deep Learning ·Natural Language Processing ·Computer Vision
·Computer Graphics ·Vulkan ·GPU 3D Pipeline ·GPU driver ·Game Engines/ Unreal Engine Unity ·C#
Development Tools Visual Studio Code, Visual Studio, Pycharm, Github, IntelliJ IDEA
·Calculus ·Linear Algebra ·Discrete Math ·Probability and Statistics ·Abstract Algebra ·Topology (basic)

ABOUT ME

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. I am open to new fields of area and enjoy exploring unknown features.

WORK EXPERIENCE

GPU Software Engineer Intern

Dec 2022- Present

Huawei Technologies Research & Development (UK) Ltd

Cambridge, England, United Kingdom

Skills: C++ · CMake · Vulkan · GPU 3D Pipeline · GPU driver · Game Engines/ Unreal Engine · Gdb

EDUCATION

University of Cambridge

Oct 2022- Present

Undergraduate in Computer Science

-Merit-based, fully funded Jardine Scholarship

Xiamen University GPA: 3.91 / 4.0 (first term), 88/100 (the whole year)

Sep 2021-June 2022

Undergraduate (First Year) in Software Engineering

-Class Rep, ACM Team training.

Nanyang Model High School

Sep 2018-June 2021

-Physics Rep, Leader of a research project.

-Awarded ShuPing Scholarship twice

HONORS AND AWARDS

Gold Medal in UK Tech Arena 2022 £7000 [C and C++, Compression, Concurrent]

10 Oct-26 Nov 2022

· 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.

Top 2 Team in Mercuria Hackathon 2022 [Python, Data Analysis, Route-Planning]

16 Dec-18 Dec 2022

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.

Jardine Scholarship, issued by Jardine Foundation

Feb 2022

Merit-based, fully-funded Scholarship during my Undergraduate at University of Cambridge

PROJECTS AND ASSIGNMENTS

Computer Vision [Stanford CS231n] [Project](#) [Github](#)

Jan 2023

Python, Numpy, kNN, Softmax, SVM classifier, Cross Validation

Machine Learning and Real-world Data [Cambridge Part IA] [Project](#) [Github](#) | [Blog](#)

Jan 2023

Text Classification using ML with improvements, including Naive Bayes classifier, Cross-Validation, NLP

Artificial Intelligence Stanford CS229 [Project](#) [Github](#)

Oct 2022

Linear classifiers (Logistic Regression, GDA), Stochastic Gradient Descent, L1 L2 Regularization, SVM

Database Design Project (C++) [CMU15-445 Project] [Project](#) [Github](#) | [Blog](#)

Aug-Oct 2022

· 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

Computer Graphics (C++, OOP, OpenGL) [MIT6.837 Assignment] [Project](#) | [Blog](#)

Jul-Sep 2022

· 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.



Multifunctional Supermarket Management System (C++, OOP) [Project](#) | [Blog](#)

Apr 2022

· Inheritance, polymorphism (Operator Overloading); Read/Write Files, etc

Typing Game (C & EasyX) [Project](#) [Github](#) | [Blog](#)

Dec 2021

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

[Portfolio](#): <https://peterhuistyping.github.io>