

EXPERIENCE

- **Jump Trading LLC** London, UK
Software Engineer Intern (Core Technology Team, Core Development) Jun 2020 – Sep 2020
 - Engineered proprietary software and hardware (ASIC/FPGA) in HFT.
 - Built in-house hardware monitoring and debugging tool-set used in live trading and Hardware Development.
- **University College London** London, UK
Undergraduate Research Fellow (Systems and Networks Research Group) Mar 2020 – Jul 2021
 - Researched on “Performant FPGA-based DNS Anomaly Detection” and engineer NIC FPGA prototypes using VHDL and C++. Build 1G/100Mbit low-latency UDP core and DNS anomaly detection core from scratch on Artix-7 and Spartan-3E. Supervised by Prof. Steve Hailes and Phil Demetriou.
 - Received the Outstanding Project Award from the department.*Undergraduate Research Engineer (UCL Centre for Artificial Intelligence)* Sep 2019 – Apr 2020
 - Engineered high-performance mobile applications in Swift, and embedded smaller AI models within the iOS platform. Supervised by Prof. John Shawe-Taylor and Sahana Bulathwela.*Undergraduate Research Fellow (UCL Centre for Research on Evolution, Search and Testing)* May 2019 – Mar 2020
 - Researched on secure language typing and quantitative information flow with Dr. David Kelly and under the supervision of Prof. Earl Barr. Engineered language prototypes and systems to examine execution flow and secure critical paths.
- **HUAWEI Technologies** Hangzhou, China
Software Engineer Wintern (Fields Embedded Systems Lab, 2012 Labs) Dec 2019 – Jan 2020
 - Optimised LiteOS (now HarmonyOS, a real-time OS)’s kernel in latency performance and memory allocation algorithms
 - Developed parallel execution infrastructure and dynamic task loading as optional kernel extensions
- **Barclays Investment Bank** Knutsford, UK
Technical Developer Summer Intern (Core Engineering) Jun 2019 – Aug 2019
 - Developed from scratch internal tools with Golang and Angular to provide internal DevOps services
 - Deployed and tested applications / services on both internal bank platforms and AWS ECS / EC2 / Lambda / S3

EDUCATION

- **University College London** London, UK
BSc Computer Science; Grade: 84%; First Class Honors; Sep 2018 – Jul 2021
Foundation in Mathematics and Physics; Grade 90%; Rank 1 / 120; Sep 2017 – Jul 2018
- **No.2 High School of East China Normal University** Shanghai, China
High School; Olympiads and Fundamental Research Experimental Class; GPA: 3.9/4.0; Sep 2015 – Jun 2017

AWARDS

- **Graduating Students’ Dean’s List, UCL Faculty of Engineering, 2021**
- **Outstanding Final Year Project, UCL Computer Science, 2021**
- **Honorable Mention at Northwestern European Programming Contest, 2019, 2018**
- **Ranked No. 21, No. 56, in UK Ireland Programming Contest, 2019, 2018**
- **UCL Undergraduate Preparatory Course Progression Scholarship, 2018**
- **1st, 2nd, 2nd Prize in National Olympiad in Informatics, China, 2014, 2015, 2016**

SKILLS

- Expertise in OSes, computer networks and computing hardware. Over 12 years of experience in competitive programming. Proficient in common algorithms and data structures, optimisation and data persistence techniques.
- **Languages:** 100,000+ LOC in C++/C, Pascal/Delphi; **and regularly using:** VHDL, SystemVerilog, Java, Haskell, Python, Swift
- **Technologies:** ASIC/FPGA, Xilinx Vivado, SQL, Redis, Git, SVN, AWS, GCP, Docker, HTML/CSS, React, Angular, Flutter