# LIU ZIHAN (Altair)

altair.liu@sjtu.edu.cn, +86 159 0215 7531

Personal Site: http://subjectnoi.github.io/about/

## Education

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**2015.09-2019.06** **Bachelor, Department of Computer Science, East China Normal University**

- GPA: 3.81/4.00, Rank: 5/116
- Scholarship in 2018/2019, MCM S award in 2018, $3^{rd}$ prize of CCCC Programming Contest in 2016
- Being recommended to **department of Computer Science, Shanghai Jiao Tong University** without exam.

**2019.09-Now** **Master, Department of Computer Science, Shanghai Jiao Tong University**

- Working on computer system structure, parallel computing and compiler.

## Job

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**2018.08-2019.01** **IBSO Cloud Development, SAP (Intern)**

- Developing cloud application deployed on **Cloud Foundry** based on **Java** and corresponding tools (**Spring, OData, MongoDB**), project is constructed by **Maven**, version control by **git** and **Jenkins**.
- Developing **S/4 HANA** application deployed on **Cloud Foundry** based on **Java**, **SAPUI5**, and doing related unit and integrate test based on **karma**, **QUnit** and **Opa5**.

**2019.01-2019.06** **GPU SM Arch, NVIDIA (Intern)**

- Developing modelling tool for software level stimulation and verification on functionality and performance on next generation GPU circuit (Ampere and Hopper Architecture). Project is based on **C/C++/CUDA**, **PTX** (IR in middle level), **SASS** (micro-instruction on hardware), and a little bit **Verilog HDL**. I mainly worked on logic of new instruction UMMA. Project is constructed by **cmake**, version control by **Perforce**.

## Project Experience

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- ML related course projects based on DCGAN, parallel DBSCAN, min-max search with $\alpha - \beta$ cutting, NSGA II, etc.
- Research on Turing Architecture GPU on ML app performance from hardware to software, as bachelor graduate project.
- Simplified compiler of C-like language using Lex, Yacc and LLVM.
- 3-D action game using Unreal Engine 4.

## Skills

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C/C++/CUDA, ACM/ML/DL Algorithm and Data Structure, Linux, LaTeX, Python, Java, SQL/MongoDB, Unreal Engine 4, Verilog HDL.