ZIHAO DING

Tel 86-18601530518 | **Email** atjohore@outlook.com | **[Github]**

Education

University of Electronic Science and Technology of China *Sept 2015 - Present (Junior)*

B.Eng. in **Software Engineering (honors program)** *Overall GPA: 3.77/4.00, 85.4/100, Rank 9%*

Core courses: *Linear Algebra, Probability and Statistics, Calculus(including ODE), Discrete Mathematics, Data Structure and Algorithm, Object-oriented Programming, Computer Network Basics, Operating System Basics, Database Principle, Digital Design, Computer Organization, Compiling Technique*

Optional courses: *Computer Graphics, Digital Image Processing, Embedded System Design, Declarative Programming*

Other: *Stochastic Process, Stanford CS229—Machine Learning, Game Theory*

Research Experience

Center for Future Media, UESTC

- Advisors: Jingkuan Song, Lianli Gao
- Optimized a approach (to a minor extent) termed *ActiveRec* in an active joint movie recommender system by introducing Ebbinghaus Forgetting Curve to imitate the decay process of the importance of users' feedbacks over time when computing the edges' weights in the user-behavior graph. Modified the original experiment program and realized increase in Precision with relatively lower decrease in Recall.

Project

A Model for Developing A Ski Resort with Greedy Strategy (collaborative) 🔗 *Nov 2017*

- Involved in modeling, programming, parameter tuning, evaluating and paper composing when designing a model for Wasatch Peaks Ranch to make it one of top ski resorts among its counterparts in North America. (Core model: A **constrained optimization** solution with **greedy strategy**.)

Three-body Simulation 🔗 *June 2017*

- Implemented a visual simulation of **Lunar-Earth-Solar Motion System** by OpenGL by C, where Geometric Transformation, Texture Mapping, Ray Tracing were considered.

Knowledge

Mathematics, Computer Graphics, Machine Learning

- **Familiar** with frequently used Probability Distribution, Estimation, Hypothesis Test; **Solid** knowledge of Linear Algebra and Calculus; **Understand** Bayesian Inference and some measures of Optimization.
- **Understand** basic Computer Graphics theoretical models. (Graphic Pipeline, Clipping, Model Transform, Rasterization, Ray Tracing, Texture Mapping)
- **Understand** with some frequently used conventional Machine Learning algorithm models. (Gradient Descent, Softmax, Logistic Regression, SVM, K-NN Clustering etc.)

Objective Programming, Computer Networking

- **Familiar** with OOP, Inheritance, Polymorphism; **Understand** C++ Generic Programming and STL;
- **Familiar** with HTTP protocol, TCP/UDP protocol; **Understand** RDT mechanism, IP protocol, LS and DV Routing Algorithm, basic Autonomous System, basic ICMP, DHCP, RIP, OSPF, BGP protocol, Multiple Access Protocol.

Skills

Programming Languages	C/C++, Matlab, Python, SQL(crud)
Tools & Platforms	Xcode, git, LaTeX, Wireshark
TOEFL	101 (R26, L27, S23, W25) (2016.12.10)