

# GUANRAN TAI

+45 52658846◇ taiguanran@gmail.com  
Brydes Alle 23, 4. Vær. 532◇ 2300, Copenhagen

github: stupidodie

## EDUCATION

---

### University of Copenhagen

*September 2021 - Present*

MS in Computer Science

Current Grade: Advanced Algorithm and Data Structure (10/12), Advanced Programming (7/12)

### University of Electronic Science and Technology of China

*September 2017- June 2021*

BA in Computer Science and Technology

GPA: 3.88/4

## DATA ANALYTICS SKILLS

---

### Programming Languages Software & Tools

C/C++, Java, Python, JS, Go, Haskell, Erlang, MATLAB, SQL  
HTML, LaTeX, Markdown, CSS

## RESEARCH EXPERIENCES

---

### Innovation and Entrepreneurship Project, Huawei and UESTC

*September 2019 - December 2019*

*Team Member*

*Team Size: 3 people*

- Aimed to develop an efficient scheduling algorithm to save storage resources, as well as an effective forecasting method to prepare in advance for storage service providers with different business sizes and time requirements in the context of the Big Data era.
- Divided the data strips and obtained the feature subsets, which were fitted by third-order equations, calculated by MATLAB to find the optimal equations, utilized the equations to forecast storage resources needed.
- Applied the clustering algorithm to data stratification, and used the master curve extraction, curve fitting, and average prediction algorithms to analyse and predict 24 storage services from three aspects: occurrence time, operation place, and space size.
- The accuracy of business forecasts reached 60%, and the project was successfully completed.

### Institute of Fundamental and Frontier Science, UESTC

*September 2018 - September 2019*

*Research Assistant*

*Professor Yong Deng's Group*

- Analysed appropriate methods to utilize and express the collected information, to make decisions in an uncertain environment since there is a certain probability that the data collected by radar, infrared, and other sensors will be superimposed, or even missing, which cannot be expressed by traditional probability theory.
- Selected Basic Probability Assignment (BPA) to represent information and to train samples, combined the attribute data of the data set, respectively calculated the BPA of a certain attribute of the sample, and then obtained the BPA of the sample according to the information fusion rules, fully utilized the information of the sample, and avoided interference brought by partial attribute value missing or errors.
- Improved the classification effect based on a new distance rule for measuring BPA and its application to a new evidence decision tree.

## CURRICULAR PROJECT

---

### Undergraduate Thesis

September 2020 - June 2021

#### *A Go Online Learning Platform*

- A Golang language learning system that enables teachers and administrators to manage, assign homework, and students to submit assignments and assessment results on the system.
- The frontend is based on React (a JavaScript frontend framework), the backend is based on Gin(a go backend framework) and the database is based on MySQL.
- Asynchronous return of assessment results based on web socket technology.

### Comprehensive Experiment of software development

September 2020 - January 2021

#### *The FileExp Project [link to GitHub](#)*

- A C++-based file compression and backup system with functions for compressing, decompressing, packing and unpacking files and folders
- GUI implementation based on Qt
- Implemented decryption, encryption and linking to cloud drives for regular backups

### Distributed and Parallel Computing

September 2019 - January 2020

- Optimization of the Sieve of Eratosthenes program using MPI, using elimination of even numbers, elimination of broadcasts, and optimization of cache hits, in that order, optimized the efficiency by a factor of nearly 4.
- Accomplish the Course and earn the certificate in [NVIDIA DEEP LEARNING INSTITUTE: FUNDAMENTALS OF ACCELERATED COMPUTING WITH CUDA C/C++](#).
- Parallel optimization of the N-body simulation using CUDA accelerated to 340 Billion Interactions per second (initial value is 0.04 Billion Interactions per second) by using a parallel, chunked, shared memory approach.

## EXTRACURRICULAR ACTIVITIES

---

### Microsoft Student Club, UESTC

June 2018 - June 2019

#### *Vice President*

- Organized a Hackathon initiated by Microsoft Research Asia among universities in Southwest China; coordinated with leaders in Microsoft, Sichuan University, and Chongqing University about regional publicity matters, and determined the theme and content of the event.
- Covered a wide range of participants from high school students to graduate students; arranged catering and tea break in the venue during the competition, provided a platform for students to communicate with each other, emerged many creative demos from the event.
- Awarded Star of the Club by Microsoft Research Asia; the club also won the Excellent Operation Award that year.

## ACHIEVEMENTS

---

Merit Student Scholarship in UESTC

*September 2020*

Merit Student Scholarship in UESTC

*September 2019*

Star of the Club, Microsoft Student Club, Microsoft Research Asia

*Jun 2019*

Merit Student Scholarship in UESTC

*September 2018*