Yao QIN

12112016@mail.sustech.edu.cn | +86 133 8030 7105

Room 8A, Building 90, Meilinyicun, NO. 148, Meili Road, Futian District, Shenzhen, Guangdong, China 518049

EDUCATION

Southern University of Science and Technology Shenzhen, China

Bachelor of Engineering in Computer Science and Technology Aug. 2021 – present

- **GPA:** 3.91/4.
- **Ranking:** 6/194 (Top 5%).
- **Major Courses:** Calculus, Linear Algebra, Discrete Mathematics, Probability and Statistics, Data Structures and Algorithm Analysis, Principles of Database Systems, Computer Organization, Computer Networks, Object-oriented Analysis and Design, Software Engineering, Distributed and Cloud Computing, Artificial Intelligence, Deep Learning.

SKILLS

Language Level: Fluent in English **(TOEFL iBT 106, CET-6)**.

Technical Skills:

- I have learned several programming languages, such as **Java, C, C++, Python, HTML, CSS, JavaScript, SQL, MATLAB,** and **Verilog.**
- Additionally, I am familiar with both **frontend and backend development** and have completed several course projects using **Spring Boot** and **Vue**.
- I also have some knowledge of **computer networks** and **hardware**, having taken courses and completed projects in these areas.

PROJECT & RESEARCH EXPERIENCE

Course Projects

1. **Othello** (a **Java Swing** game)
   Course: Introduction to Computer Programming (2021 Fall)
2. **A Ryu controller** to control **a virtual SDN network** implemented using **Mininet**
   Course: Computer Networks (2023 Spring)
3. **A CPU with Minisys (a subset of MIPS) instruction set** on an FPGA chip (using **Verilog** to develop)
   Course: Computer Organization (2023 Spring)
4. **Project Helper** (a web application where teachers can publish assignments and projects, students can form groups, chat with each other, and submit their assignments and projects, using **Spring Boot** and **Vue** to develop)
   Course: Object-oriented Analysis and Design (2023 Fall)
5. **Events Center** (a web application where teachers and students can publish events, make reservations, book seats, write reviews, and share real-time information such as video clips and pictures, using **Spring Boot** and **Vue** to develop)
   Course: Software Engineering (2024 Spring)
6. **Cloud-native version of Events Center** deployed using **Docker** and **Kubernetes**
   Course: Cloud Computing with Big Data (NUS SoC Summer Workshop 2024)

Research Projects

1. **The applications of multi-agent reinforcement learning (MARL) algorithms in web application testing** Aug. 2023 – Jun. 2024

- The project focuses on using MARL algorithms to improve the efficiency of web application testing.
- My work is to implement MARL algorithms based on single-agent reinforcement learning algorithms.
- Our research group eventually published **a paper** titled **"Can Cooperative Multi-Agent Reinforcement Learning Boost Automatic Web Testing? An Exploratory Study"** at **ASE 2024**, in which I am the fourth author.
- Besides, we have applied for **a Chinese patent**, which is currently under review, with the **application number 2024104232001**. I am the second author of the patent.

2. The applications of deep reinforcement learning (DRL) algorithms in web application testing

Feb. 2024 - present

- The project aims to explore DRL algorithms and further improve the efficiency of web application testing.
- My work is to implement a web testing system and integrate some DRL algorithms into the system.

WORK EXPERIENCE

Internship in GBA Digital & Innovation Lab of The Bank of East Asia (China) Limited Aug. 2024

- Participated in a project on credit report automation.
- Attempting to use large language models (LLMs) to generate credit reports automatically.
- Compare the performance of different LLMs.
- Design and optimize prompts to make the content generated by LLMs as precise as possible.

AWARDS & HONORS

1. The Excellence Award of the 2021 Freshman Scholarship
2. The Second Class of the Merit Student Scholarship in the academic year 2021-2022
3. The Third Class of the Merit Student Scholarship in the academic year 2022-2023
4. The prize of "Outstanding Student" in the year 2023
5. The Third Class Honor in the 5th and 6th SUSTech Programming Contest
6. The Third Class Honor in Guangdong Contemporary Undergraduate Mathematical Contest in Modeling 2022 and 2023
7. Successful Participant in the 2023 American Mathematical Contest in Modeling

EXTRACURRICULAR ACTIVITIES

National University of Singapore School of Computing Summer Workshop 2024 May. 2024 – Jul. 2024

- Studying the course Cloud Computing with Big Data.
- Learning how to use Docker and Kubernetes.
- Learning how to design, develop, and deploy cloud-native applications.
- Leading a team to develop a cloud-native application (mentioned above) in the course project.
- Achieved **an A grade**.

Worked as a student assistant for the Java course for two semesters 2022 and 2023 Fall Semesters

- Answering students' questions and explaining concepts they didn't understand.
- Assisting the teacher in preparing assignments and writing evaluation codes to grade the students' assignments.

Volunteered as a teacher in Danzao Town, Nanhai District, Foshan, China. Jul. 2023

- Teaching and accompanying local primary school students for two weeks.
- I was responsible for the programming lessons.

南方科技大学
SOUTHERN UNIVERSITY OF SCIENCE AND TECHNOLOGY

教学工作部
Teaching Affairs Office

南方科技大学教学工作部 成绩单用章

Transcript of Academic Record

Family Name:	Qin	**Student ID:**	12112016	**Residential College:**	Shude College
Given Name:	Yao	**Date of Enrollment:**	22/08/2021	**Department:**	Department of Computer Science and Engineering
Gender:	Male	**Duration:**	4years	**Program:**	Computer Science and Technology
Date of Birth:	08/12/2002	**Date of Graduation:**	2025.06.30	**ID No.:**	440304200212082651
Now:	in campus				

Course	Credit	Letter Grade	Pct Grade	Categ	Course	Credit	Letter Grade	Pct Grade	Categ
Academic Year2021-2022 Fall Semester									
Physical Education I	1	A	95	GR	General Physics B (I)	4	B+	87	GR
Practice Course of the Basic Principles of Marxism	1	P	P	EC	SUSTech English II	4	A	96	GR
Introduction to Computer Programming A	3	A	96	GR	Introduction to Life Science	3	B+	89	GR
Military Skills	2	P	P	GR	Military Theory	2	P	P	GR
Writing and Communication Skills	2	P	P	GR	Cultivation of Ethicsand Fundamentals of Law	2	A	94	GR
Calculus I A	4	A-	90	GR	**********				
Academic Year2021-2022 Spring Semester									
General Physics B (II)	4	B	85	GR	Calculus II A	4	A+	97	GR
Physical Education II	1	B+	89	GR	SUSTech English III	4	A	95	GR
Practice Course of Brief History of Modern China	1	P	P	EC	Linear Algebra A	4	A	95	GR
C/C++ Program Design	3	A-	90	ME	Practice Course of Morality and Rule of Law	1	P	P	EC
Experiments of Fundamental Physics	2	A-	91	GR	Practice Course of Introduction to Mao Zedong Thought and Theoretical System of Socialism with Chinese Characteristic	2	P	P	EC
The Principles of Marxism	2	A-	90	GR	**********				
Academic Year2021-2022 Summer Semester									
Primary Cantonese	2	A	96	GE	**********				
Academic Year2022-2023 Fall Semester									
Data Structures and Algorithm Analysis	3	B	85	MR	Situation and Policy	2	A+	97	GR
Digital Logic	3	A-	91	MR	Discrete Mathematics	3	A	94	MR
Principles of Database Systems	3	A+	98	MR	Piano Performance Art in Recording	2	A+	99	GE
Physical Education III	1	A	95	GR	English for Academic Purposes	2	A	93	GR
Academic Year2022-2023 Spring Semester									
Computer Organization	3	A+	100	MR	Physical Education IV	1	A	95	GR
Algorithm Design and Analysis	3	A+	99	MR	The Outline of Modern and Contemporary History of China	2	A-	90	GR

Date of Issue:September 12,2024

地址：中国广东省深圳市南山区西丽大学城学苑大道1088号
Add：1088 Xueyuan Blvd.,Nanshan District,Shenzhen,Guangdong,P.R.China
电话（ TEL ）：0755-88010300（办公室） 邮编（ Post Code ）：518055
邮箱（ Email ）：tao-sls@sustech.edu.cn 网址（ Website ）：www.sustech.edu.cn

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Now:	in campus				

Course	Credit	Letter Grade	Pct Grade	Categ	Course	Credit	Letter Grade	Pct Grade	Categ
Mao Zedong Thoughtand Introduction to theTheoretical System of Socialism with Chinese Chaadeistics	3	A	93	GR	Probability and Statistics	3	A+	98	MR
Computer Networks	3	A	96	MR	Introduction to Matlab Programming	3	A	96	GE
Education on the Hard-working Spirit	1	P	P	GR	**********				
Academic Year2023-2024 Fall Semester									
Languages & Linguistics	2	A	95	GE	Object-oriented Analysis and Design	3	A	96	MR
Computer System Design and Applications A	3	A+	100	ME	Artificial Intelligence	3	A	96	MR
Distributed and Cloud Computing	3	A+	98	ME	Frontier Seminars in Computer Science and Technology I	1	P	P	MR
Group Projects I	2	A-	90	MR	Physical Education V	0	A	94	GR
Academic Year2023-2024 Spring Semester									
Group Projects II	2	A	95	MR	Frontier Seminars in Computer Science and Technology II	1	P	P	MR
Operating Systems	3	A+	100	MR	Physical EducationVI	0	B+	88	GR
Computer Vision	3	A+	99	ME	Deep Learning	3	A	95	ME
Software Engineering	3	A+	100	MR	**********				

Credits Achieved: 131 **(credits required for graduation:** 138 **) Grade Point Average:** 3.91

Student Ranking: 6/194 **Weighted Average Score:** 94.37

Date of Issue:September 12,2024

地址：中国广东省深圳市南山区西丽大学城学苑大道1088号
Add：1088 Xueyuan Blvd.,Nanshan District,Shenzhen,Guangdong,P.R.China
电话（ TEL ）：0755-88010300（办公室） 邮编（ Post Code ）：518055
邮箱（ Email ）：tao-sls@sustech.edu.cn 网址（ Website ）：www.sustech.edu.cn

说 明

1. 成绩与绩点的换算关系

（1）等级制、百分制成绩对应绩点

绩点	4.00	3.94	3.85	3.73	3.55	3.32	3.09	2.78	2.42	2.08	1.63	1.15	0
等级	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
百分参考	97~100	93~96	90~92	87~89	83~86	80~82	77~79	73~76	70~72	67~69	63~66	60~62	<60

（2）通过/不通过式成绩

以通过（P, Pass）、不通过（F, Fail）方式记载成绩的课程：成绩为通过的，计入学分、不计入平均学分绩点(GPA)；成绩为不通过的，既不计入学分，也不计入平均学分绩点(GPA)。

2. 平均学分绩点（GPA）的计算方式

一门课的学分绩 = 绩点 × 学分数

平均学分绩点（GPA）= ∑所修课程学分绩 ÷ ∑所修课程学分数

3. 课程类别说明

通必：通识必修课　　通选：通识选修课

专必：专业必修课　　专选：专业选修课

其他：培养方案外课程

4. 标识说明

W：退课

Notes

I. Conversion from course grades to grade points

i. Grade point equivalents

Grade Point	4.00	3.94	3.85	3.73	3.55	3.32	3.09	2.78	2.42	2.08	1.63	1.15	0
Letter Grade	A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
Percentage Grade	97~100	93~96	90~92	87~89	83~86	80~82	77~79	73~76	70~72	67~69	63~66	60~62	<60

ii. Grade points for Pass/Fail grades

There are no grade points for courses assessed with the P (Pass)/F (Fail) grading system, therefore not included in the grade point average calculation.

II. Grade Point Average (GPA) Calculation

Weighted grade points of a course = Grade points × Course credits

GPA＝Sum of all weighted grade points / Sum of all course credits

III. Course Categories

GR: General education required courses　　GE: General education elective courses

MR: Major required courses　　ME: Major elective courses

EC: Courses outside curricula but accredited by SUSTech

IV. Codes

W: Withdrawal　　LD: Late drop, absent from the final exam

DM: Disqualified due to misconducts in the exam　　EX: Exemption