

Fu Chen

Junior student

2001 Longxiang Boulevard, Longgang District, Shenzhen, Guangdong, China

Email: fuchen@link.cuhk.edu.cn | Tel: (+86) 18705082935

EDUCATION

The Chinese University of Hong Kong, Shenzhen, China Sept 2022 - Jun 2026 (expected)
B.E. in Computer Science and Engineering (Artificial Intelligence Stream) Cumulative GPA: 3.96/4.00

Core Courses (A grade): Machine Learning, Optimization, Probabilities, Linear Algebra, Advanced Linear Algebra, Calculus I/II; C/C++ Programming, Data Structures, Database System, etc.

Services: Undergraduate Student Teaching Fellow (USTF) of course Linear Algebra and Applications

National University of Singapore, Singapore May 2024 - Sept 2024 (expected)
Undergraduate Research Opportunities Programme in Science (UROPs, Summer Exchange)

COMPETITION EXPERIENCE

National Olympiad in Informatics Jul 2021
Bronze Medalist Yuyao, China

National Olympiad in Informatics, Winter Camp Jan 2021
Bronze Medalist Yuyao, China [Remote]

Fujian Provincial Team of Olympiad in Informatics Apr 2021

Asia and Pacific Informatics Olympiad Aug 2020
Silver Medalist Jakarta, Indonesia [Remote]

National Olympiad in Informatics in Provinces, Senior Group every Nov during 2017-2021
First Prize Fujian, China

National Olympiad in Informatics in Provinces, Junior Group every Nov during 2016-2018
Second Prize-2016; First Prize-2017, 2018 Fujian, China

ACADEMIC EXPERIENCE

Research on Faster Methods to Solve Batch Effects Jul 2023 - May 2024
School of Data Science, the Chinese University of Hong Kong, Shenzhen Shenzhen, China
Supervisor: Prof. Tianwei Yu

- Build up programming environment, running and testing more than 10 related C++, Python and R programs/packages in the environments.
- Utilize dimension reduction techniques to reduce the asymptotic time complexity by one dimension; Utilize machine learning skills such as random sampling to further improve the efficiency.
- Manuscript available at BIORXIV/2024/600557

Research on Computational Methods for phylogenetic Trees Analyses May 2024 - Sept 2024
Faculty of Science, National University of Singapore Singapore
Supervisor: Prof. Louxin Zhang

- Understanding the vector representation method of analyzing phylogenetic trees, including the result calculation and tree operations.
- Developed Python programs for finding common parts of multiple phylogenetic trees to analyze the similarity. Clear and visually appealing visualizations are a standout feature of the code.

PROJECTS

Personal Pages

Jun 2024

- Built a Github personal page via templates.
- Organized my course enrollment details and materials on the website.
- Available at frankchenfu.github.io

MNIST Handwritten Digit Classification

Nov 2023

Course Projects for C/C++ Programming and Machine Learning

Shenzhen, China

- Incorporated *Pytorch* convolutional neural network (CNN) and obtained over 97.5% accuracy
- Adopted *OpenCV* k -nearest neighbors (KNN) algorithm and obtained over 92.7% accuracy
- Developed a deep learning framework based on *numpy* and obtained over 90.0% accuracy

Arknights Simulator Database System

Apr 2024

Course Project for Database System (Group Project)

Shenzhen, China

- Designed a game database with 9 entities based on the underlying game logic
- Applied large language models to refine the database structure and queries
- Led 3 group members to implement over 200 database queries by MySQL

SCHOLARSHIP AND ACADEMIC AWARD

Academic Performance Scholarship, Class B

Sept 2023

Award to students with outstanding academic performance (<top 2%)

Dean's List Award

Sept 2023

Award to students with excellent academic performance

Huiling Tu Full Admission Scholarship

Sept 2022

Award to freshmen with excellent qualities.

SKILLS

Language Chinese (native); English (fluent; GRE-319, TOEFL-N/A)

Software Proficient in Visual Studio, VS Code, Conda Environments, Markdown editors, \LaTeX editors, MS Excel

Programming Proficient in Python, C/C++, R and MySQL; Familiar with Java, Matlab, HTML, and VHDL