Dongge Jia

Tel.: (+1) 412-657-1284 Email: doj14@pitt.edu

(For my research experience, please visit my my homepage)

EDUCATION

PhD student in Computational Modeling and Simulation **September 2022 – August 2025**

University of Pittsburgh (PITT), Pittsburgh, United States

GPA: 4.0/4.0 (43 credit hours)

Gold Prize winner of the 2024 China International College Students' Innovation Competition (CICSIC 2024), (Project: Digital Twin System for infrastructure Maintenance)

Machine Learning courses and grades

10-601 Introduction to Machine Learning (at **Carnegie Mellon University**)	A
ME 2232 Mathematics of Data-Enabled Science and Engineering	A

Computer Science courses and grades

COS-2400 Operating Systems (at Thomas Edison State University, remote)	93/100
COS-3300 Computer Architecture (at Thomas Edison State University, remote)	94/100
MAT-2700 Discrete Mathematics (at Thomas Edison State University, remote)	93/100
CMP-2540 Network Technology (at Thomas Edison State University, remote)	95/100
Data Structures and Algorithms: In-Depth using Python (on Udemy)	

Internship

Research Assistant in Embodied AI August 2024 – August 2025
San Diego State University

- Improving generalization in Vision-Language-Action models.
- Deep reinforcement learning in autonomous systems.

M.S. in Civil Engineering **September 2019 – March 2022**
Shanghai Jiao Tong University (SJTU), Shanghai, China

GPA: 3.76/4.0 (Ranking in my grade level: 2nd/29)

Awards/honors

COSCO Shipping Scholarship (top 2/76)
Yuqiu Yang Scholarship (top 2/76)
Qingyang Jin Scholarship
First-Class Research Scholarship in 2020
First-Class Research Scholarship in 2019

Second Prize in the Archery Competition at the School of Naval Architecture, Ocean and Civil Engineering

Internships

Technical Engineering Intern April 2022 – August 2022
Internet Data Centre, Alibaba Cloud

- Underwent comprehensive training on the full spectrum of data centers' server architectures, including detailed explorations of hardware components such as CPUs, GPUs, and storage systems, as well as advanced software layers encompassing distributed storage and virtualization technologies.
- Studied the physical and virtual networking essential for managing data flow and enhancing security within data centers.

Market Analysis Intern July 2021 – August 2021

Real Estate Research Institute, China Industrial Securities

- Analyzed the development trend of the real estate market in China and the US.

B.Eng. in Civil Engineering **September 2015 – June 2019**

Huazhong University of Science and Technology (HUST), Wuhan, China

Yearly Cumulative Average Grade (Ranking out of 86 students in my grade level):
first year: 77.8/100 (42nd), I did not realize the importance of studying and self-studied these courses again in my fourth year;
second year: 90.8/100 (2nd); third year: 89.5/100 (2nd); fourth year: 86.9/100 (2nd)

Representative courses and grades

Probability Theory and Mathematical Statistics	99/100
Numerical Methods	94/100
Advanced Programming Language (C++)	91/100
The FORTRAN Programming Language	86/100
Database System Technology and Applications	94/100
The Finite Element Method	92/100
Structural Mechanics (II)	99/100
Structural Mechanics (I)	92/100
Mechanics of Materials	94/100

Awards/honors

Honor of Star of Learning and Innovation (top 1/204), HUST	2018
Honor of Merit Student (top 3%), HUST	2018
National Encouragement Scholarship (top 3%), Ministry of Education of China	2018
National Third Prize (top 5%), Central China College Student Mathematical **Contest** in Modelling (Topic: Big data analysis of diabetes treatment in U.S. hospitals)	2018
Honor of Merit Student (top 3%), HUST	2017
National Encouragement Scholarship (top 3%), Ministry of Education of China	2017
National Third Prize (top 5%), National Peiyuan Zhou Mechanics **Competition**	2017
Honor of Excellent Student Cadre, HUST	2017
Excellent College Assistantship, HUST	2017
Honor of Excellent Singer, HUST	2016

Certificates

Alibaba Cloud Certification – IT Technical Service
Alibaba Cloud Certification – Data Center Infrastructure Engineer
National Computer Level-3 Certificate (Database Technology)
National Computer Level-2 Certificate (MySQL)
National Computer Level-2 Certificate (C++)

University service

Team Leader — November 2018 – February 2019
The 10th Future Entrepreneur Training Camp, HUST

Director of Publicity Department of the Student Union — June 2017 – June 2018
School of Civil Engineering and Mechanics, HUST

Summer School **July 2018 – August 2018**

National University of Singapore (NUS), Singapore

Program: "Issues in Infrastructural Development in Singapore"

PROGRAMMING

Through classes and competitions, I have learned C++, Python, Fortran, SQL, VBA, Mathematica, and PFC 6.0 (Fish).

In my research, I primarily use Python, Julia, MATLAB, and C++. I have applied Python in Embodied AI, machine learning courses, and in developing the SpatialConfiguration-Net model for labeling hand bone joints. Julia is the language I use for the Lattice Discrete Particle Model (LDPM), which I built from scratch. MATLAB has been my computational tool of choice during my undergraduate and master's research. For the Delaunay tetrahedralization and Voronoi tessellation in LDPM, I utilize Voro++ within a C++ environment. Part of my code is available on my GitHub: https://github.com/DonggeJia.

REFERENCES

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