# YANG Luming

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2023

2021

2022

2021/2023

Background	
Burton International School Detroit, Michigan, U.S.A.	Jan. 2010 - Jan. 2011
Guangzhou No.2 Middle and High School	Sept. 2014 -Jun. 2020
- leader of student Information and Science Technology Department	•
Southern University of Science and Technology	Sept. 2020 - till now
Bachelor of Engineering in Computer Science and Technology	Shenzhen, Guangdong
- Overall GPA: 3.4/4.0 (3.68 in Junior Semester) Weighted Avg. Score: 84.21/100	0
Main Course:	
- *Deep Learning *Artificial Intelligence *Software Engineering Operat	ting System
Computer Security Computer Networks *Data Mining Discre	te Mathematics
Probability and Statistics *Com. Sys. Design and Application *Algorithm Designation *Represents cou	gn and Analysis urse project receive full marks
Organizing Experience:	
- President of SUSTech Red Cross (Student)	
- Leader of SUSTech Emergency Rescue Association	
- Vice President of the School Volleyball Club	
The Hong Kong Polytechnic University   Exchange (Admitted)	Jan. 2024 – May 2024
Honors	
Scholarship	
- University Motto Scholarship (Dean's Scholarship) (1%)	2023
- National Scholarship Nomination (2%)	2023
- The Third Prize Scholarship of University (15%, twice)	2021/2022
<b>National Olympiad in Informatics and Collegiate Programming Contest</b>	
- National Olympiad in Informatics in Provinces (Senior/Junior) – First Prize (thric	ce) 2018 etc.
- SUSTech Collegiate Programming Contest – Second Prize	2022
International Genetically Engineered Machine Competition (iGEM)	
- Silver Medal	2023
China International Collegiate "Internet+" Innovation and Entrepreneurs	
- intramural competition – First Prize (First Place)	2023

### **Sports and Hobbies**

**Excellent student of SUSTech** 

Ethic Award of SUSTech

Outstanding volunteer of SUSTech

**Student Honors** 

- National Level China ARDF (Radio Orienteering) Youth Championship the First (champion)
- Municipal Level Shenzhen Volleyball Championship (University cup) the First (champion)
- Zhicheng College group badminton league the First (champion)

Outstanding Youth in Guangdong Province (unique in the University)

### Guangdong Youth Big Data and New Media Center

Aug. 2020 - Sept. 2020

Internship - Responsible for information retrieval, and data analysis

- Due to data confidentiality, a similar project can be referred. GitHub: AnalyzeSOF

## **Evolving Machine Intelligence Lab of SUSTech ☑**

Jun. 2021 till now

Research Assistant

 Participated in developing the distributed scalable evolutionary computation intelligent acceleration library EvoX, and was responsible for the development of scalable algorithms that meet the functional programming standards using library JAX developed by google. GitHub: EvoX Report: EvoX Report

#### Smart Dynamics Co. Ltd

Jun. 2023 - Oct. 2023

Internship - Research and Development

- Actively contributed to the development of an AI-powered physical-world safety warning platform.
- Apply optimization algorithm to fine-tune the platform, improving the effect by 7%.

# Research and Projects

# **Tensorized Ant Colony Optimization for GPU Acceleration**

Oct. 2023

Sole First Author | Corresponding Author: Prof. Ran Cheng

- With tensorization, optimizing **89x** compared to serialization methods with no loss of quality. New exploration of i-roulette, achieved an extra acceleration of **2.1x**. Waiting for Submission to GECCO'24.

# Enhancing Action Recognition via RGB-Skeleton Fusion with Transformer $\square$

Aug. 2023

Sole First Author | Corresponding Author: Dr. Lei Ding

- A state-of-the-art solution in action recognition, achieved an accuracy of 0.955 on KTH dataset. Enhanced 10% in accuracy during tests across diverse background settings. **Submitted** to ICME 2024.

#### Capacitated Arc Routing AI Based on Heuristic Genetic Algorithm ☑

Dec. 2022

- Developed an algorithm, introduced an operator and shuffle process to optimize solutions, with a focus on reducing local optima. Conducted analysis and experiments. Report: <u>Heu. GA for CARP</u>

#### **Traffic Sign Detection with YOLOv8** | Advisor: Prof. Jianguo Zhang

May 2023

- YOLOv8 on Edge Device Jetson Nano for traffic sign recognition. Report: Traffic Sign Detection
- Designed experiment, dataset establishment, parameter adjustment, model accelerating, analysis.

**Other intriguing projects** including Fund System, chess game and chat room apps, on GitHub.

# **Voluntary Experience**

#### Total Volunteer Service Hours: 499.25 h

2020 till now

- Including sport events, academic conferences and competitions, caring for vulnerable group etc.

# **Student President of SUSTech Red Cross**

2022 till now

- Founded the SUSTech Red Cross (Student), gained recognition as one of the five campus-level student organizations. Organized a variety of volunteer events, campus charity markets, and fundraising initiatives. Conducted first aid course including CPR for students and staff, with over 2,000 trained.
- Achieved the distinction of "Distinguished Member of Red Cross" in Guangdong province.

#### Campus Volunteer First Aid Responder

2020 till now

- Responded to over 60 emergencies, effectively managing diverse situations, including suspected cases of epilepsy, fractures, trauma, heatstroke, hyperventilation, and snake bites.
- Avg. response time less than 3 mins, significantly faster than the avg. ambulance arrival time.
- Honored with 'SUSTech Emergency Rescue Model' for outstanding contributions, twice.

#### **Others**

- English Proficiency: TOEFL (105), CET-4/6, have experience of overseas studying and oral translating, well-equipped to seamlessly integrate English into both academic and endeavors
- AHA HeartSaver®, Red Cross First Aid Certificate, China Red Cross Rescue Mentor qualification
- Radio Operator License (Level A), National Volleyball Referee certificate (Level 2)