Bohong ZHAO

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EDUCATION

Nara Institute of Science and Technology (NAIST), Ikoma, Nara, Japan

- Master Program in Information Science — Apr 2022 – Apr 2024 (expected)
  - Under Supervision of Prof. Yoshinobu Sato, Imaging-based Computational Biomedicine Lab
  - Research theme: 2D/3D Registration, Deep Learning

The University of British Columbia (UBC), Vancouver, BC, Canada — Jul 2018 – Aug 2018

- Summer Program: Algorithm & Webapp Courses

Southern University of Science and Technology (SUSTech), Shenzhen, Guangdong, China

- B.Eng. in Computer Science and Engineering — Sep 2016 – Jul 2021
  - Relavent courses: Data Structures and Algorithms Analysis, Discrete Mathematics, Digital Logic, Computer System Design and Application, Computer Organization Principle, Database Principle, Probability and Statistics, Artificial Intelligence, Computer Networks, Embedded System and Microcomputer Principle, Object-oriented Analysis and Design, Software Engineering, C/C++ Programming Design, Computer Vision, Introduction to Cognitive Science, Operating System, Robotics, Introduction to Big Data Analysis

RESEARCH EXPERIENCE

2D/3D Registration using Deep Learning

- Master Research Theme, NAIST — Apr 2022 – Present
  - Supervisor: Prof. Yoshinobu Sato
  - Focus: 2D/3D registration, medical imaging, deep learning, neural networks.
  - Languages & Framework: Python, PyTorch, MATLAB
  - Summary: Implementing deep learning methods to 2D/3D registration of pre-op and intra-op data overcomes the difficulties that the conventional methods cannot handle. Explicit formalization of complicated mapping is no longer necessary, but with a better performance.

Medical Image Processing using Deep Learning

- Summer Research Project, SUSTech — Jun 2019 – Sep 2019
  - Supervisor: Prof. Feng Zheng
  - Focus: Medical imaging, deep learning, neural networks.
  - Languages & Framework: Python, PyTorch
  - Summary: An elementary deep learning research training, applying to medical image detection and segmentation.

Parallel Implementation of MOEA/D and its Application to Feature Selection

- Undergraduate Research Course Project, SUSTech — Sep 2018 – Jun 2019
  - Supervisor: Prof. Hisao Ishibuchi
  - Focus: Evolutionary algorithms, multiobjective optimization, combinatorial optimization, feature selection.
  - Languages: Python, MATLAB
  - Summary: The evolutionary algorithm has progressive effect recent years when working on feature selection which is the most important part of machine learning and data mining. This project aims to create a parallel environment for MOEA/D algorithm, using the island model and find out an effective way in which partial data would be used for communication. We use feature selection to verify our proposal in the whole process.

WORK EXPERIENCE

Ping An Technology, Shenzhen, Guangdong, China

- Development Intern, Knowledge Graph Dev Team — Jun 2020 – Nov 2020
  - Django back-end development.
  - Stock data engineering based on abstract calculation syntax tree.

AWARDS & SCHOLARSHIPS

- **Best Student Assistant**, Shuren College, SUSTech — Sep 2016 – Jun 2018
  Awarded to the outstanding student assistants for helping tutors and students with college affairs.
- **Undergraduate Scholarship**, SUSTech — Sep 2016
  Awarded to the top students at the beginning of the undergraduate.

CAMPUS ACTIVITIES

Student Congress, SUSTech

- Representative — Sep 2016 – Jul 2020
  - Participate in making important decisions about student affairs.

SKILLS

- Python (advanced), C/C++, Java, SQL, Shell, LaTeX,

LANGUAGES

- Chinese: Native
- English: Fluent
- Japanese: Basic.

[*CV compiled on 2022-10-27, check it on github.com/hackroid/cv*]