

Haotian Hou

Beihang University, Beijing, China
China: +86 185 8824 1183 | hthou@buaa.edu.cn

EDUCATION

Beihang University

Beijing, China

September 2022 – Present

Overall GPA: 3.63/4.0

Major: Biomedical Engineering

Coursework: Probability and Statistics • Algebra • Analysis • Anatomy and Physiology • Bioinformatics • Engineering Mechanics • Genomics

Honors and Awards: Shou'e Scholarship (Beihang University)

IELTS: Overall: 8.0/9.0 • Listening: 9.0/9.0 • Reading: 8.5/9.0 • Writing: 6.5/9.0 • Speaking: 7.0/9.0

EXPERIENCE

The Chinese University of Hong Kong, Computer Science and Engineering Department

Hong Kong, China

Research Assistant

June 2024 – September 2024

- Assisted in the development of anomaly detection algorithms based on diffusion models for the rapid batch processing of brain MRI and abdominal CT images
- Proficiently utilized Linux servers for large-scale data training and processing
- Designed a tumor generation algorithm to augment the training dataset, enhancing the accuracy of reconstruction and the effectiveness of anomaly detection by over 30%

Mathematical Contest in Modeling 2024

Contest Participant

December 2023 – January 2024

- Participated in the 2024 Mathematical Contest in Modeling and received an Honorable Mention award
- Collaborated with teammates to establish a mathematical model for predicting athletes' real-time performance trends in different stages of the race using multiple algorithms
- Proposed and improved the use of LSTM for solving the final part of the problem, composed the abstract and main sections of the paper

Beihang University Social Practice team

Beijing, China

Interviewing Team Leader

November 2023 – March 2024

- Investigated the current status of rural industrial development, The existing difficulties and problems, as well as the requirements for talents, technology, funds, etc., in a research team named *Discovery into the Enchanting Miao Village*
- Led the team members to conduct interviews, in-depth visits, questionnaire surveys and discussions as leader of the interview team, and compile interview transcripts after the event
- Designed a structured interview process that cut down the average time spent on interviews by 20%

Beihang University Charity Association

Beijing, China

Audio Editor and Reviewer

March 2023 – Present

- Recorded story audio for children in impoverished mountainous areas as part of volunteer service
- Reviewed and edited the uploaded recordings to enhance audio quality

SKILLS

Programming: C++ • MATLAB • Python (Deep Learning) • R (Data Analysis)

Laboratory: SDS-PAGE • Western blot • Protein purification • Genetic sequencing • PCR

Software: AutoCAD • Solidworks • Adobe Premiere

Languages: Chinese (native), English (fluent)