# Shangai Li

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## EDUCATION

**Huazhong University of Science and Technology, China** *M.B. Candidate* **Expected Graduation June 2026**

- GPA: 86.3/100 (Rank: 7/25) Major: Basic Medicine
- Relevant Coursework: *Cell Biology, Biochemistry & Molecular Biology, Medical Genetics, Medical Statistics, Medical Data Mining Methods and Applications, Clinical Epidemiology, Bioinformatics*

**Huazhong University of Science and Technology, China** *B.E. Candidate* **Expected Graduation June 2026**

- GPA: 89.8/100 Minor: Computer Science and Technology (50 Credits)
- Relevant Coursework: *Algorithmic Design & Analysis, Data Structures, Software Engineering, Object oriented Programming(C++), Principles of Databases, Operating Systems, Computer Network, Principle of Computer Organization*

**The University of Texas at Austin, USA** Exchange Student **2024 Summer**

- GPA: 4/4 (straight A's)
- Relevant Coursework: *Python Programming, Data Analytics(R Language)*

***English Proficiency**: IELTS(6.5),CET-4 (548), CET-6 (533) | **NCRE** Level 3 Database Technology| **Awards:***
*2025 CSC and Mitacs Undergraduate Research Internship Collaboration Scholarship,*
*Third Prize in Basic Medicine (2024 Undergraduate Academic Conference), Outstanding Teamwork Award,*
*2020 National High School Physics Competition, Provincial Second Prize(35th Place in Theoretical Exam), 2019 Provincial High School Chemistry Competition, First Prize (Grade 10 Group)*

## ACADEMIC,RESEARCH & INDUSTIAL EXPERIENCE

**Long Short-Term Memory Attention for Parkinson's Activity Recognition** **Mar 2025**

- **Conference Submission:** Submitted to the ABC 2025: 7th International Conference on Activity and Behavior Computing, April 21–25, 2025
- **Role:** First Author
- **Institution:** Huazhong University of Science and Technology, Wuhan, China
- **Supervisor:** Hilmi Demirhan, University of North Carolina Wilmington, USA
- **Description:** Led the development of DeepConvLSTM-Attention, a hybrid deep learning model for activity recognition in Parkinson's disease using accelerometer data. This model combines CNN, LSTM, and attention mechanisms to achieve superior accuracy and F1 scores compared to traditional and deep learning methods. The work contributes to advancing clinical monitoring and personalized care in Parkinson's disease management.(Originating from the ABC Challenge 2025)

**Mitacs Globalink Research Internship, Canada** **Expected May 2025 - August 2025**

- **Role:** Research Intern
- **Institution:** Memorial University of Newfoundland, Canaday
- **Supervisor:** Sevtap Savas
- **Description:** Focusing on analyzing BRM gene expression in abdominal cavity tumors using computational and statistical methods. Leveraging my computer science background to process TCGA gene expression data, perform statistical comparisons, and investigate the link between BRM expression and cancer. This work may contribute to a co-authored research publication.

**GEARS Program (Global Education, Academics, and Research Skills Program)** **Jan 2025 - Feb 2025**

- **Role:** Remote Research Intern
- **Institution:** University of North Carolina Wilmington, USA
- **Description:** Engaged in research aligned with my academic focus, enhancing skills in data analysis, AI modeling, and remote collaboration with international faculty. Presented research findings via a graded academic poster and video presentation.

**CXCR2-Mediated Response of Pancreatic Cancer Cells to IRE Treatment** **Feb 2023 - Mar 2024**

- **Role:** Project Leader
- **Supervisor:** Professor Long Xin, School of Basic Medicine, Huazhong University of Science and Technology
- **Description:** ***Provincial*** College Students' Innovation and Entrepreneurship Program,Third ***Prize & Outstanding Teamwork***, 2024 Undergraduate Academic Conference in Basic Medicine

**Brain Tumor Dataset Analysis** **August 2024**

- **Role :** Project Leader
- **Supervisor:** Dr. Kia Teymourian UT Austin
- **Description:** Downloaded the Brain Tumor Dataset from Kaggle and applied data analysis techniques using R and Python. Utilized machine learning algorithms and bioinformatics tools to analyze the dataset, identifying potential biomarkers for early diagnosis.

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**Epidemiological Data Analysis Reproduction** **2024 Preventive Medicine Strategy Internship**

- **Role :** Research Assistant
- **Supervisor:** Liangkai Chen, School of Public Health, Tongji Medical College
- **Description:** : Reproduced and expanded epidemiological data analysis using Cox proportional hazards models in R. Drafted a project plan, conducted statistical analyses, and prepared the manuscript for submission. The results were consistent with the original study.
- **Reference**: JAMA Neurol. doi: 10.1001/jamaneurol.2023.0183

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**Single-Cell and Genomics Data Analysis Training** **Mar 2024 - Jun 2024**

- **Role:** Trainee
- **Supervisor:** Dr. Xiaoming Li Huazhong University of Science and Technology
- **Description:** Gained foundational knowledge in machine learning and deep learning. Used R and Python for single-cell data analysis and genomics data processing. Produced a comprehensive report summarizing the findings.

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## LEADERSHIP EXPERIENCE

**Basic Medical Science "Neuroscience" Summer Social Practice Program** **Jul 2023 - Sep 2023**

- Co-led a summer social practice program focused on neuroscience in basic medicine.
- Collaborated with team members to conduct interviews with neuroscientists and craft reports.

**Vice Class Monitor & Student Union Member** **2021-2022**

## SKILLS & INTERESTS

**Relevant Skills:**

- **Programming & Machine learning:**
  ***Languages & Tools:*** Python( Proficient with PyTorch, scikit-learn, Pandas, NumPy ), R( Data analysis and statistical modeling) , C++ ( Basic knowledge of programming and algorithm design)
  ***Machine learning:*** Familiar with common algorithms such as linear/logistic regression, decision trees, random forests, SVM, KNN, and gradient boosting (e.g., XGBoost).

***Deeplearning:*** Proficient in PyTorch for implementing and training models, including CNN, LSTM, and attention-based models.
Continuously expanding knowledge in machine learning and AI by exploring new algorithms, attending workshops, and applying techniques in real-world projects.
***Web Development:***Basic knowledge of web development technologies, including HTML, CSS, JavaScript, and Node.js.

- **Project Management & Academic Writing:**

**Interdisciplinary Interest:**

- ***Passionate about exploring and advancing AI technologies****, particularly machine learning and deep learning, to push the boundaries of computational methods. Interested in the theoretical and technical aspects of AI, and its potential to revolutionize various fields, including biology and medicine.*