

Mohammed Batis

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Page: <https://batis1.github.io/batis1/>

Date of Birth: 09/12/1998 Nationality: Yemeni

Research Interests

Reverse engineering artificial neural networks into human understandable algorithms.

My research interests lie in mechanistic interpretability and trustworthy AI. I aim to uncover the internal computational mechanisms of neural networks and large language models.

- Mechanistic interpretability of large language models
- Interpretable machine learning for biomedicine

Education

PhD Computer Science and Technology

2025 – Present

University of Science and Technology of China, Hefei, China

MSc Computer Science and Technology

05/10/2022 – 30/07/2025

Wenzhou University

Final grade: 4.5. Thesis: Research on the Improved RIME Optimization Algorithm and Its Application for Wrapper-based Feature Selection in Biomedical Data.

BSc Computer Science and Technology

07/10/2018 – 14/06/2022

Wenzhou University

Final grade: 4.03 GPA. Thesis: Design and Implementation of a Chinese HSK Test Preparation Platform.

Secondary School

14/08/2014 – 09/07/2017

Mukalla Model Secondary School

Final grade: 98.63%.

Publications

Google Scholar: 21 citations, h-index: 2.

Metrics updated September 7, 2026.

Random differential RIME optimization for multi-threshold segmentation in dermoscopic skin cancer images

2026

Biomedical Signal Processing and Control, 123, 110533

M. Batis, Q. Shao, L. Liu, A. A. Heidari, H. Chen. 0 citations. [Article link](#).

Prey capture enhanced Harris hawks optimizer for wrapper-based feature selection in high-dimensional medical data

2026

Computer Methods and Programs in Biomedicine, 109237

M. Batis, Y. Chen, L. Liu, A. A. Heidari, H. Chen. 2 citations. [Article link](#).

ACGRIME: adaptive chaotic Gaussian RIME optimizer for global optimization and feature selection

2025

Cluster Computing, 28(1), 61

M. Batis, Y. Chen, M. Wang, L. Liu, A. A. Heidari, H. Chen. 19 citations. [Article link](#).

Project

WHSK – Interactive HSK Preparation Platform

09/01/2022 – Current

Independent academic and software project

Developed a gamified web platform for HSK exam preparation, featuring interactive practice and progress tracking. Registered software copyright in China (No. 2025SR0444242). Project link: <https://whsk.tech/>.

Honours and Awards

- CAS-ANSO Scholarship at USTC (2025)
- Chinese Government Scholarship at Wenzhou University (10/07/2022)
- Excellent Graduation Design Award at Wenzhou University (20/06/2022)
- Zhejiang Government Scholarship at Wenzhou University (09/10/2021)
- Second Place in Mukalla Model Secondary School Rankings (07/12/2017)
- 9th Best Middle School Graduate in the Province of Wadi Hadramout (04/07/2013)

Technical Skills

- Programming: Python, JavaScript, MATLAB, PyTorch
- Web and Software: React, Svelte, Node.js, MongoDB, MySQL

Languages

- Arabic (mother tongue)
- English
- Chinese