

Heng Yang

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Homepage: yangheng95.github.io — Huggingface: [yangheng](https://huggingface.co/yangheng) — Google Scholar: [Heng Yang](https://scholar.google.com/citations?user=HengYang)
University of Exeter, Exeter City, UK

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Objective

Seeking a research position in AI and NLP, leveraging expertise in biological sequence modeling, sentiment analysis, and adversarial attacks to drive innovation and contribute to impactful research projects.

Education

- **University of Exeter**
PhD in NLP/Genomics Modelling Sept. 2021 - Sept. 2025
Exeter, UK
- **South China Normal University**
Master's in NLP/Sentiment Analysis Sept. 2018 - June 2021
Guangzhou, China
- **Yangtze University**
Bachelor's in Computer Science Sept. 2014 - June 2018
Jingzhou, China

Awards

- **PhD Scholarship, Research Grant** University of Exeter, 2021-2025
- **Chinese National Scholarship, First-class Academic Scholarships** South China Normal University, 2020
- **Outstanding Bachelor Graduate** Yangtze University, 2018

Main Publications

- **OmniGenBench: Automating Large-scale Benchmarking for Genomic Foundation Models**
Heng Yang, Jack Cole, Ke Li ArXiv Preprint
- **OmniGenome: Aligning RNA Sequences with Secondary Structures in Genomic Foundation Models**
Heng Yang, Ke Li AAAI 2025
- **MP-RNA: Unleashing Multi-species RNA Foundation Model via Calibrated Secondary Structure Prediction**
Heng Yang, Ke Li EMNLP 2024
- **The Best Defense is Attack: Repairing Semantics in Textual Adversarial Examples**
Heng Yang, Ke Li EMNLP 2024
- **PlantRNA-FM: An Interpretable RNA Foundation Model for Exploration Functional RNA Motifs in Plants**
Haopeng Yu#, Heng Yang#, et al. (Co-first Author) Nature Machine Intelligence 2024
- **Modeling Aspect Sentiment Coherency via Local Sentiment Aggregation**
Heng Yang, Ke Li EACL 2024
- **PyABSA: A Modularized Framework for Reproducible Aspect-based Sentiment Analysis**
Heng Yang, Chen Zhang, Ke Li CIKM 2023
- **Evolutionary Multi-objective Instruction Optimization via LLM-based Instruction Operators**
Heng Yang, Ke Li EMNLP 2023
- **BoostAug: Boosting Text Augmentation via Hybrid Instance Filtering Framework**
Heng Yang, Ke Li ACL 2023
- **DaNuoYi: Evolutionary Multi-Task Injection Testing on Web Application Firewalls**
Ke Li, Heng Yang IEEE Transactions on Software Engineering 2023

Personal Open-source Projects

- **OmniGenBench** – 4.7k Installations Sept. 2024 - Present
First large-scale in-silico benchmarking framework for genomic foundation models GitHub
- **PyABSA** – 340k Installations, 1k GitHub stars June 2020 - Present
Aspect-based sentiment analysis framework, serving commercials, developers and scholars GitHub

Community Contribution Statistics

- **GitHub:** 1.5k stars, \approx 160 commits and 60 PRs/year. I am a open-source lover since the beginning of my research. I am grateful to the developers whose projects helped me a lot. Therefore, I am committed to share all my open-source projects on GitHub with friendly MIT lenience.
- **Huggingface:** 8 Models and 10 Spaces with \approx 1,000k downloads and 10k access, respectively. Thanks to the Huggingface platform, I am glad to share all my pretrained and fine-tuned state-of-the-art sentiment analysis and genomic foundation models. e.g., [deberta-v3-base-absa-v1.1](#) and [OmniGenome-186M](#). Moreover, I have been to releasing demos for low-resource research topics, like RNA secondary structure prediction and RNA Design.
- **PyPi:** 8 python wheels with 800k downloads. I have made efforts to simplify the workflows and pipelines by packing and releasing open-access Python wheels. My wheels have been widely used in by the community. These wheels can be easily distributed via PyPi and installed via the pip tool.