

Heng Yang



Homepage

+44-7878711663 | hy345@exeter.ac.uk | +44-7878711663
[Homepage](#) | [GitHub](#) | [Huggingface](#) | [Google Scholar](#)
Department of Computer, University of Exeter, United Kingdom



Latest
Version

♥ OBJECTIVE

Seeking an opportunity to apply my expertise in genomics modeling and language modeling to contribute to impactful research and push the boundaries of AI4Science.

👤 RESEARCH EXPERIENCE

- **GFM/LLM**: Designed and developed genomic language models from scratch. Created a comprehensive benchmarking framework for genomic foundation models. Studied the LLM pipelines and applications.
- **Sentiment Analysis**: Create one of the most popular open-source sentiment analysis framework.

🎓 EDUCATION

- **University of Exeter** *Sep 2021 - Sep 2025*
PhD in Genomic LM and LLM Exeter, UK
- **South China Normal University** *Sep 2018 - Jun 2021*
Master of Sentiment Analysis Guangzhou, China
- **Yangtze University** *Sep 2014 - Jun 2018*
Bachelor of Computer Science Jingzhou, China

🔗 PERSONAL OPEN-SOURCE PROJECTS

- **OmniGenBench** – 5k Installations *Sept. 2024 - Present*
First large-scale in-silico benchmarking framework for genomic foundation models [GitHub](#)
- **PyABSA** – 350k 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 \approx 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.

📖 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*
- **MPRNA: 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*
- **PlantRNAFM: 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*
- **InstOptima: 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](#), [Willem Visser](#) *IEEE Trans. on Software Engineering 2023*

🏆 AWARDS

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