Dahao Tang

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Google Scholar: https://scholar.google.com/citations?user=DPLu-fgAAAAJ

EDUCATION

David James Lab, Charles Perkins Centre, University of Sydney Mar 2026 – Present
Master of Philosophy, AI & Biology, supervised by Prof. David James and Prof. Jinman Kim

University of Sydney Feb 2021 – Nov 2025
Bachelor of Advanced Computing, Majored in Computer Science, Honours Class I, supervised by A/Prof. Tongliang Liu

University of Sydney Feb 2021 – Nov 2025
Bachelor of Commerce, Majored in Finance

PUBLICATIONS

Optimal Look-back Horizon for Time Series Forecasting in Federated Learning AAAI 2026 (Oral)
Dahao Tang, Nan Yang, Yanli Li, Zhiyu Zhu, Zhibo Jin, Dong Yuan

Stability-Driven CNN Training with Lyapunov-Based Dynamic Learning Rate ADC 2024
Dahao Tang, Nan Yang, Yongkun Deng, Yuning Zhang, Abubakar Sadiq Sani, Dong Yuan

Adaptformer: An Adaptive Multimodal Deep Decomposition Approach for Power Consumption Forecasting ADMA 2024
Nan Yang, Yuning Zhang, Yunqi Wang, Dahao Tang, Yanli Li, Dong Yuan

INVITED TALKS

Tesserome: An AI-Ready Omics Data Platform for Biological Discovery Nov 2026
Invited by Prof. Hesham El Gamal, Dean of Engineering and Vice-Provost (AI Implementation), to deliver the final extended-format presentation in the AI Showcase on Tesserome, an AI-powered platform for multi-omics data storage and meta-analysis, at the University of Sydney Faculty of Engineering's inaugural faculty-wide staff retreat.

WORK EXPERIENCE

University of Sydney | *Research Assistant, School of Life and Environment Science* Jul 2024 – Present
Co-founder and lead developer of Tesserome (previously ProtHome) at the David James Lab

University of Sydney | *Academic Tutor, School of Computer Science* Aug 2024 – Present
ISYS2120: Data and Information Management (2024 S2, 2026 S2)

PROFESSIONAL EXPERIENCE

Tesserome | *David James Lab Project; Co-founder* Jul 2024 – Present
Creating a platform for storing and analysing multi-omics data. Empowering meta-analysis across a large volume of datasets

Cytomotif | *Research Project* Mar 2026 – May 2026
Developed a web tool for identifying motif patterns in the cytoplasmic sequences of SLC family members that traffic to the plasma membrane in response to insulin

Émeline | *Personal Project* Dec 2024 – Feb 2025
Agent with smart memory. Demo link: https://vimeo.com/1073007297/8ba13cb601

ioulia.ai | *Startup; Co-founder* Jan 2024 – Jul 2024
AI Tarot Master. Designed the technical roadmap and engineered the MVP from scratch

GigHero | *Startup; Co-founder* Apr 2023 – Aug 2024
Two-sided online marketplace MVP for on-site services. Developed the web platform using React and Express

Searten | *University-Industry Collaboration Project; Project Manager, Full-stack Developer* Aug 2023 – Nov 2023
Led a cross-functional team to develop the web MVP for a local startup Searten, overseeing the project lifecycle

File System Implementation with FUSE | *University Project* 2022
Implemented a functional file system in C using the FUSE interface, engineered support for large file handling and hierarchical directory structures

OS Scheduler Implementation | *University Project* 2022
Designed and implemented an operating system scheduler in C. Integrated Round Robin and Multi-Level Feedback Queue (MLFQ) to optimise process execution efficiency