TIAN CHENG "RICCARDO", XIA

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ESPERIENZA LAVORATIVA

Research Intern · National Institute of Informatics, Tokyo, Japan July 2025 – Jan 2026
Worked on research projects carried out by the laboratory of Prof. Akiko Aizawa:
- Designed and implemented a controlled multi-agent LLM + RAG pipeline using OpenAI and open-source models for automated scientific paper generation, improving citation accuracy and factual grounding, leading to the acceptance of 2 papers at the `Agents4Science` conference held by Stanford University.
- Co-designed and annotated a multimodal (image, text, and tables) dataset for scientific claim verification, which has been released for the `SciClaimEval` shared task.
- Conducted experiments to assess the effects of hedges and boosters in scientific writing with the goal of evaluating the adversarial effects of certain linguistic patterns on LLMs.

Research Intern · SmartData Research Group, Bologna, Italy Apr 2023 – Sept 2023
Worked on research projects carried out by the laboratory of Prof. Danilo Montesi:
- Surveyed LLM applications in biomedical NLP, which resulted in an internal technical report that guided the research direction of the group.
- Designed a biomedical summarization pipeline by fine-tuning transformer models on PubMed with a focus on reliability and accuracy, which achieved a +5% improvement in ROUGE and BERTScore on the state-of-the-art and led to the publication of a journal paper.

Stage Ufficio IT/IS · Toyota Material Handling Manufacturing, Bologna Dic 2019, Lug 2019, Feb 2019

EDUCATION

M.Sc. in Artificial Intelligence · University of Bologna, Italy 2023 – 2026
Thesis title: A Self-Supervised Attribution Method for Explaining Neural Networks
Graduation grade: 110/110 *cum laude* · GPA: 29.6/30 (top 5%)

B.Sc. in Computer Science · University of Bologna, Italy 2020 – 2023
Thesis title: Subtopic-Oriented Biomedical Summarization using Pretrained Language Models
Graduation grade: 110/110 *cum laude* · GPA: 29.52/30 (top 5%)

COMPETENZE

Artificial Intelligence	PyTorch · TensorFlow · HuggingFace · LangChain · LangGraph ·Scikit-learn LLM fine-tuning · Multi-agent systems · RAG · Multimodal models Explainable AI · Symbolic AI · Constraint programming
Infrastructure	AWS · Google Cloud · Docker · Ansible · CI/CD
	NodeJS · FastAPI · Flask · Vue · Nuxt · React · AstroJS · SQL · MongoDB
	Python · C · C++ · Java · Kotlin · Javascript

LINGUE

Italiano native speaker
Inglese CEFR C1 (IELTS 7,5)
Cinese conversational

ACHIEVEMENTS

1st Place at LauzHack 2024, BMS Challenge · EPFL, Lausanne, Switzerland `Project repository`
Developed an explainable time-series forecasting model using Gaussian Processes and Shapley values to predict pharmaceutical demand, ranking 1st out of 12 teams in the Bristol Myers Squibb hackathon challenge.

1st Place at Tablut AI Agent Challenge · University of Bologna, Italy `Link al repository`
Designed and developed an AI player for the asymmetric board game Tablut using adversarial search and heuristic evaluation. The player ranked 1st out of 10 agents.

PUBLICATIONS

Xanh Ho, Yun-Ang Wu, Sunisth Kumar, **Tian Cheng Xia**, Florian Boudin, Andre Greiner-Petter, Akiko Aizawa. (2026).
"SciClaimEval: Cross-modal Claim Verification in Scientific Papers".
Language Resources and Evaluation Conference (LREC). arXiv: 2602.07621.

Tian Cheng Xia, Flavio Bertini, Danilo Montesi. (2025).
"Large Language Models Evaluation for PubMed Extractive Summarisation".
ACM Transactions on Computing for Healthcare. DOI: 10.1145/3766905.

Paolo Ciancarini, Raffaele Giancarlo, Gennaro Grimaudo, Marcello Missiroli, **Tian Cheng Xia**. (2025).
"The Design and Realization of a Self-Hosted and Open-Source Agile Internal Development Platform".
IEEE Access. DOI: 10.1109/ACCESS.2025.3564141.