EMILY YU

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Blechturmgasse 28/31, Vienna, Austria

PROFESSIONAL EXPERIENCE

Leiden University, Netherlands   Since Oct 2025
Assistant Professor

· Leiden Institute of Advanced Computer Science

Institute of Science and Technology Austria, Austria   Sept 2023 – Sept 2025
Postdoctoral Researcher

· Working with Prof. Thomas A. Henzinger on runtime monitoring and neural control verification.

Woodpecker Technologies, Singapore   Aug 2022 – Jan 2023
External Consultant

· Pre-silicon formal verification for chip designs.

Johannes Kepler University Linz, Austria   Feb 2019 – Jun 2023
Project Assistant

· Formal Models and Verification Group, lead by Prof. Armin Biere.

Morgan Stanley, London, United Kingdom   April – Sept 2017
Software Engineer

· Full-stack development during 6-month industrial placement.

BlackRock, London, United Kingdom   Jun – Aug 2016
Software Engineer Intern

· Worked on internal web platform development.

Imperial College London, United Kingdom   2015 – 2016
Teaching Assistant

· Part-time employment. Courses: Discrete Maths, Logic, and Reasoning about Programs.

Imperial College London, United Kingdom   Jul – Sept 2015
Research Assistant

· 20 hours per week. Group of Prof. Chris Hankin. Research on games and abstractions for cybersecurity.

CAREER BREAKS

Maternity leave 2021-2022.

RESEARCH INTERESTS

System Verification: both for hardware designs and AI-based systems;
Runtime Monitoring: ensuring runtime safety and correctness of complex dynamical systems.

EDUCATION

Johannes Kepler University Linz, Austria   2019 – 2023
Ph.D. in Computer Science *with distinction*
Thesis: *Certifying Hardware Model Checking*
Supervisor: Prof. Armin Biere

Imperial College London, United Kingdom   2014 – 2018
M.Eng in Computing, *First Class Honours*
Integrated Master's degree: 3-year Bachelor + 1-year Master
Thesis: *Model Checking Temporal Epistemic Logic under Bounded Recall*
Supervisor: Prof. Alessio Lomuscio

Concord College, United Kingdom   2012 – 2014
GCE A-levels (High School)
Maths (A*), Further Maths (A*), Economics (A), and Physics (A).

HONORS & AWARDS

· **Distinguished Paper Award**, Int. Conf. on Computer Aided Verification (CAV), 2025

· **FWF ESPRIT Fellowship**, Principal Investigator, 2025
RAVENS: Runtime Assurance and Verification of Neural Systems
Austrian Science Fund, EUR 346,505
Host Institute: Vienna University of Technology, Austria

· **Disruptive Idea Award**, Neuro-symbolic Systems (NeuS) Conference, 2025
DARPA award, USD 100,000

LANGUAGE PROFICIENCY

English (fluent), Cantonese (fluent), German (B2), Mandarin (native)

ACADEMIC SERVICES AND OUTREACH

Member of Program Committee
· AAAI Conference on Artificial Intelligence (AAAI), 2026;
· European Conference on Artificial Intelligence (ECAI), 2025;
· Int. Joint Conference on Artificial Intelligence (IJCAI), 2025;
· Int. Conference on Formal Methods in Computer-Aided Design (FMCAD), 2025;
· Int. Conference on Formal Methods in Computer-Aided Design (FMCAD) Student Forum, 2025;
· Int. Conference on integrated Formal Methods (iFM), 2024.

Member of Artifact Evaluation Committee
· Int. Conference on Verification, Model Checking, and Abstract Interpretation (VMCAI), 2024;
· Int. Symposium on Formal Methods (FM), 2024;
· Int. Symposium on Automated Technology for Verification and Analysis (ATVA), 2024.

Journal Referee
· Journal of Artificial Intelligence Research (JAIR), 2025
· Formal Aspects of Computing Journal, 2025.