HONGYU HÈ

Princeton, NJ, USA | hhy@g.princeton.edu | (640)-230-4640
github.com/HongyuHe | hhy.ee.princeton.edu | /in/HongyuHe | @Hongyu_He

(Version: Dec. 2025 | Underlined content contains hyperlink)

EDUCATION

Princeton University — *PhD in Electrical Engineering* *Aug. 2024 – present*

- Advisor: Prof. Maria Apostolaki *United States*
- GPA: 3.95/4.0 (eight graduate-level courses in EE and CS)

ETH Zürich — *MSc in Computer Science* *Aug. 2021 – Jul. 2024*

- Direct Doctoral Scholar (5 out of 230 CS master's students in 2022) *Switzerland*
- Associated Researcher at ETH AI Center

Vrije Universiteit Amsterdam — *BSc (Hons) in Computer Science* *Aug. 2018 – Jul. 2021*

Universiteit van Amsterdam — *BSc Minor in Mathematics* *Sep. 2019 – Jan. 2021*

- GPA ranking: 1/180 (national top-10 in CS by KHMW in 2020) *The Netherlands*

Tianjin University — *BA in Law* (unfinished) *Sep. 2016 – Aug. 2017*

- Top 0.2% among 153,276 regional students (liberal arts) in National College Entrance Exam, "Gaokao" *China*

RESEARCH EXPERIENCE

Systems Group @ ETH — *MSc thesis* [2] | Advisor: Prof. Gustavo Alonso *Oct. 2021 – May 2024*

***Serverless Simulation Project:* NoServer** | Prof. Christina Delimitrou, Dr. Sameh Elnikety *Nov. 2022 – Jan. 2023*

Atlarge Research — *BSc thesis* [1] | Advisor: Prof. Alexandru Iosup *Dec. 2018 – Jul. 2021*

KARMA Research — *Research project* [3] | Prof. Jacopo Urbani *May 2019 – Sep. 2020*

Elsevier Discovery Lab — *Research Assistant* | Prof. Michael Cochez *May 2020 – Aug. 2020*

INDUSTRY EXPERIENCE*

Curieo AI — *ML Research Fellow* | remote, part-time *Jul. 2024 – Oct. 2024*

IBM Research — *Engineering Intern* | Geodata Team | part-time *Apr. 2024 – Jun 2024*

Apple Inc. — *Research Engineer Intern* [5] | Visual Intelligence Team | *(return offer)* *May 2023 – Oct. 2023*

Oracle Labs — *Graal Cloud Native Intern* | Serverless Team | part-time | *(return-intern offer)* *Feb. 2023 – May 2023*

Dexter Energy Services — *BSc Thesis Intern* *Jun. 2021 – Sep. 2021*

Huawei Technologies (Amsterdam Research Center) — *R&D Intern* | Search Team *Mar. 2021 – Jun. 2021*

Picnic Technologies — *Software Developer* | Store Team | part-time *Sep. 2020 – Mar. 2021*

— *Backend Engineer Intern* | Mentor: Sander Mak | *(return offer)* *Jun. 2020 – Sep. 2020*

TEACHING

Princeton University | 20 hrs/wk (head TA) | Computer Networks *2025*

ETH Zurich | 14 hrs/wk | Distributed Systems Lab, Big Data (my session recordings) *2023, 2024*

Vrije Universiteit Amsterdam | 8–16 hrs/wk | Graph Theory, Linear Algebra, C++, Calculus I *2019, 2020*

*Industry recommendations: hhy.ee.princeton.edu/rec/

TECHNICAL SKILLS

Programming & Scripting: C/C++, Python, (System)Verilog, Golang, Shell, Scala, Java, SQL, LaTeX
Software & Tools: Kubernetes, Xilinx Vivado/Vitis suite, JAX, PyTorch, Linux, Git, Docker, Knative, Apache Spark, SLURM, STM32 (ARM Cortex-M3), MongoDB, PostgreSQL, Hadoop, HBase, Spring5, Qt5

PUBLICATIONS

Preprint

[9] M. Jin, **H. Hè**, M. Apostolaki. *Assessing User Privacy Leakage in Synthetic Packet Traces: An Attack-Grounded Approach*. arXiv:2508.11742

Peer-reviewed paper

[8] **H. Hè**, M. Apostolaki. *Making Logic a First-Class Citizen in Network Data Generation with ML*. USENIX NSDI '26 (to appear) [PDF]

[7] **H. Hè**, M. Apostolaki. *Just-in-Time Logic Enforcement: A new paradigm of combining statistical and symbolic reasoning for network management*. ACM HotNets '25

[6] A. Zhou, C. Costic, **H. Hè**, A. Ghalayini, A. Kabbani, M. Apostolaki. *Just-in-Time Logic Enforcement: A new paradigm of combining statistical and symbolic reasoning for network management*. ACM HotNets '25

[5] B. McKinzie, Z. Gan, J. Fauconnier, ..., **H. Hè**, ..., P. Grasch, A. Toshev, Y. Yang. *MM1: Methods, Analysis & Insights from Multimodal LLM Pre-training*. ECCV '24 **(first multimodel LLM from Apple)** [PDF]

[4] **H. Hè**, M. Friedman, T. Rekatsinas. *EnergAt: Fine-Grained Energy Attribution for Multi-Tenancy*. HotCarbon '23 **(adopted by Trycarbonara)** [PDF] [slides] [code] [media]

[3] B. Kruit, **H. He**, J. Urbani. *Tab2Know: Building a Knowledge Base from Tables in Scientific Papers.* ISWC '20. [PDF] [slides] [code]

Degree thesis

[2] **H. Hè**. *FPGA-based SmartNIC for Distributed Machine Learning*. 2024 **(best grade: 6.0/6)** [MSc thesis]

[1] **H. He**. *How Can Datacenters Join the Smart Grid to Address the Climate Crisis? Using simulation to explore power and cost effects of direct participation in the energy market*. 2021 **(Amsterdam Thesis Award)** [BSc thesis]

OTHER ACHIEVEMENTS

- ♦ Princeton NAM Fellowship in AI *2025*
- ♦ Princeton UA Fellowship in Computer Science *2024*
- ♦ Nominee for ETH Medal (MSc) *2023*
- ♦ Danish Government scholarship [€ 28,260] *2021*
- ♦ Leiden Excellence scholarship [€ 15,000] *2021*
- ♦ GRE 334 (verbal: 161, quant: 170, writing: 3) *2021*
- ♦ GLOBE scholarship (ranked 1st out of 900+) [€ 1,250] *2020*
- ♦ ACM-ICPC: Amsterdam Algorithm Programming Preliminaries (AAPP) with my team, ranked 1st *2020*
- ♦ ACM-ICPC: Benelux Algorithm Programming Contest (BAPC) with my team, ranked 9th *2019*
- ♦ Young Talent Incentive Award by *The Royal Holland Society of Sciences (KHMW)* *2019*
- ♦ Ranked 1st in Operating Systems (Prof. Cristiano Giuffrida) and Networks (Prof. Andrew Tanenbaum) courses *2019*

SERVICE

- **Artifact Evaluation Committee:** SOSP '23; MLSys '23; MobiSys '23; JSys '22, '23; ICPE '24
- **Tutorial Organizer**: ASPLOS '22 (Integration of Firecracker μVM)

LANGUAGES

English: TOEFL (speaking): 28, IELTS: 9 | **German**: B1 | **Dutch**: Basic | **Mandarin**: PSC: Level 1-B, regional max.