

HONGYU HÈ

📍 Princeton, NJ, USA 📩 hhy@g.princeton.edu 📞 (640)-230-4640

GitHub: github.com/HongyuHe 🌐 hhy.ee.princeton.edu 💬 [/in/HongyuHe](https://in.linkedin.com/in/HongyuHe) 📺 [@Hongyu_He](https://www.twitter.com/@Hongyu_He)

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

EDUCATION

Princeton University — <i>PhD in Electrical Engineering</i>	<i>Aug. 2024 – present</i>
▶ Advisor: Prof. Maria Apostolaki	<i>United States</i>
▶ GPA: 3.95/4.0 (eight graduate-level courses in EE and CS)	
ETH Zürich — <i>MSc in Computer Science</i>	<i>Aug. 2021 – Jul. 2024</i>
▶ Direct Doctoral Scholar (5 out of 230 CS master's students in 2022)	<i>Switzerland</i>
▶ Associated Researcher at ETH AI Center	
Vrije Universiteit Amsterdam — <i>BSc (Hons) in Computer Science</i>	<i>Aug. 2018 – Jul. 2021</i>
Universiteit van Amsterdam — <i>BSc Minor in Mathematics</i>	<i>Sep. 2019 – Jan. 2021</i>
▶ GPA ranking: 1/180 (national top-10 in CS by KHMW in 2020)	<i>The Netherlands</i>
Tianjin University — <i>BA in Law</i> (unfinished)	<i>Sep. 2016 – Aug. 2017</i>
▶ Top 0.2% among 153,276 regional students (liberal arts) in National College Entrance Exam, “ Gaokao ”	<i>China</i>

RESEARCH EXPERIENCE

Systems Group @ ETH — <i>MSc thesis</i> [2] Advisor: Prof. Gustavo Alonso	<i>Oct. 2021 – May 2024</i>
Serverless Simulation Project: NoServer Prof. Christina Delimitrou, Dr. Sameh Elnikety	<i>Nov. 2022 – Jan. 2023</i>
Atlarge Research — <i>BSc thesis</i> [1] Advisor: Prof. Alexandru Iosup	<i>Dec. 2018 – Jul. 2021</i>
KARMA Research — <i>Research project</i> [3] Prof. Jacopo Urbani	<i>May 2019 – Sep. 2020</i>
Elsevier Discovery Lab — <i>Research Assistant</i> Prof. Michael Cochez	<i>May 2020 – Aug. 2020</i>

INDUSTRY EXPERIENCE*

Curieo AI — <i>ML Research Fellow</i> remote, part-time	<i>Jul. 2024 – Oct. 2024</i>
IBM Research — <i>Engineering Intern</i> Geodata Team part-time	<i>Apr. 2024 – Jun 2024</i>
Apple Inc. — <i>Research Engineer Intern</i> [5] Visual Intelligence Team (return offer)	<i>May 2023 – Oct. 2023</i>
Oracle Labs — <i>Graal Cloud Native Intern</i> Serverless Team part-time (return-intern offer)	<i>Feb. 2023 – May 2023</i>
Dexter Energy Services — <i>BSc Thesis Intern</i>	<i>Jun. 2021 – Sep. 2021</i>
Huawei Technologies (Amsterdam Research Center) — <i>R&D Intern</i> Search Team	<i>Mar. 2021 – Jun. 2021</i>
Picnic Technologies — <i>Software Developer</i> Store Team part-time	<i>Sep. 2020 – Mar. 2021</i>
— <i>Backend Engineer Intern</i> Mentor: Sander Mak (return offer)	<i>Jun. 2020 – Sep. 2020</i>

TEACHING

Princeton University 20 hrs/wk (head TA) Computer Networks	<i>2025</i>
ETH Zurich 14 hrs/wk Distributed Systems Lab, Big Data (my session recordings)	<i>2023, 2024</i>
Vrije Universiteit Amsterdam 8–16 hrs/wk Graph Theory, Linear Algebra, C++, Calculus I	<i>2019, 2020</i>

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

TECHNICAL SKILLS

Programming & Scripting: C/C++, Python, (System)Verilog, Golang, Shell, Scala, Java, SQL, L^AT_EX

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. *MMI: 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. Hè**, J. Urbani. *Tab2Know: Building a Knowledge Base from Tables in Scientific Papers*. ISWC '20.
[PDF] [slides] [code]

Degree thesis

- [2] **H. He.** *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 μ VM)

LANGUAGES

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