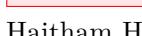


Aoyu Gong

Contact Information	EPFL IC SENS, BC 118 (Bâtiment BC), 1015 Lausanne, Switzerland Website Scholar ResearchGate GitHub LinkedIn	+41 79 657 71 50 aoyu.gong@epfl.ch
Educational Background	Doctor of Philosophy , Networking Systems  École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland <ul style="list-style-type: none">• Advisor: Haitham Hassanieh	Sep. 2024 – Present
	Master of Science , Communication Systems  École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland <ul style="list-style-type: none">• GPA: 5.76/6.00	Sep. 2021 – July 2024
	Bachelor of Engineering , Communication Engineering  Nanjing University of Science and Technology, Nanjing, China <ul style="list-style-type: none">• GPA: 3.90/4.00	Sep. 2015 – June 2019
Work Experience	Research Intern , Network and Cloud Systems Research Group  Max Planck Institute for Informatics, Saarbrücken, Germany <ul style="list-style-type: none">• Topic: Understand short-form (TikTok/YouTube) video content using multimodal models	Aug. 2023 – Feb. 2024
	Research Assistant , Visual Intelligence for Transportation Laboratory Mar. 2023 – May 2023  École Polytechnique Fédérale de Lausanne, Lausanne, Switzerland <ul style="list-style-type: none">• Topic: Rethink traditional operations research problems with deep reinforcement learning	
Selected Publications	<p>* stands for the equal contributions. A full list can be found here.</p>	
	12.  Aoyu Gong , Arman Maghsoudnia, Raphael Cannatà, Eduard Vlad, Néstor Lomba Lomba, Dan Mihai Dumitriu, Haitham Hassanieh, “Towards URLLC with Open-Source 5G Software,” <i>Proceedings of the 1st Workshop on Open Research Infrastructures and Toolkits for 6G</i> , 2025	
	11.  Yuqing Zhu, Yiwen Zhu, Aoyu Gong , Yan Lin, Yuan-Hsuan Lo, Yijin Zhang, “Age -Gain-Dependent Random Access for Event-Driven Periodic Updating,” <i>IEEE Transactions on Communications</i> , vol. 73, no. 8, pp. 5774–5787, 2025	
	10.  Aoyu Gong , Sepehr Mousavi, Yiting Xia, Savvas Zannettou, “ClipMind: A Framework for Auditing Short-Format Video Recommendations Using Multimodal AI Models,” in <i>Proceedings of the 19th International AAAI Conference on Web and Social Media</i> , 2025	
	9.  Raphael Cannatà, Aoyu Gong , Arman Maghsoudnia, Dan Mihai Dumitriu, Haitham Hassanieh, “SliceGuard: Secure and Dynamic 5G RAN Slicing with WebAssembly,” in <i>Proceedings of the 30th Annual International Conference on Mobile Computing and Networking</i> , 2024	
	8.  Arman Maghsoudnia, Eduard Vlad, Aoyu Gong , Dan Mihai Dumitriu, Haitham Hassanieh, “Ultra-Reliable Low-Latency in 5G: A Close Reality or a Distant Goal?,” in <i>Proceedings of the 23rd ACM Workshop on Hot Topics in Networks</i> , 2024	

7. **SIGCOMM '24** Jialong Li, Haotian Gong, Federico De Marchi, **Aoyu Gong**, Yiming Lei, Wei Bai, Yiting Xia, “Uniform-Cost Multi-Path Routing for Reconfigurable Data Center Networks,” in *Proceedings of the ACM SIGCOMM 2024 Conference*, 2024
6. **TVT** **Aoyu Gong**, Yuan-Hsuan Lo, Yan Lin, Yijin Zhang, “Dynamic Random Access Without Observation Under Deadline-Constrained Periodic Traffic,” *IEEE Transactions on Vehicular Technology*, vol. 73, no. 1, pp. 1503–1508, 2024
5. **TCOM** Yijin Zhang*, **Aoyu Gong***, Lei Deng, Yuan-Hsun Lo, Yan Lin, Jun Li, “Achieving Maximum Urgency-Dependent Throughput in Random Access,” *IEEE Transactions on Communications*, vol. 71, no. 11, pp. 6435–6450, 2023
4. **TCOM** Jingwei Liu, Rui Zhang, **Aoyu Gong**, He Chen, “Optimizing Age of Information in Wireless Uplink Networks with Partial Observations,” *IEEE Transactions on Communications*, vol. 71, no. 7, pp. 4105–4118, 2023
3. **TNSE** **Aoyu Gong**, Yijin Zhang, Lei Deng, Fang Liu, Jun Li, Feng Shu, “Dynamic Optimization of Random Access in Deadline-Constrained Broadcasting,” *IEEE Transactions on Network Science and Engineering*, vol. 10, no. 4, pp. 2059–2073, 2023
2. **GLOBECOM '20** **Aoyu Gong***, Tong Zhang*, He Chen, Yijin Zhang. “Age-of-Information-Based Scheduling in Multiuser Uplinks with Stochastic Arrivals: A POMDP Approach,” in *Proceedings of the 2020 IEEE Global Communications Conference*, 2020
1. **TCOM** Yijin Zhang, **Aoyu Gong**, Yuan-Hsun Lo, Jun Li, Feng Shu, Wing Shing Wong. “Generalized p -Persistent CSMA for Asynchronous Multiple-Packet Reception,” *IEEE Transactions on Communications*, vol. 67, no. 10, pp. 6966–6979, 2019

Awards & Honors	Best Demo Award	<i>Nov. 2024</i>
	• Awarded by ACM MobiCom '24	
	EDIC Fellowship	<i>Feb. 2024</i>
	• Awarded by École Polytechnique Fédérale de Lausanne	
	Provincial Best Bachelor Thesis Award	<i>Sep. 2020</i>
	• Awarded by Jiangsu Provincial Department of Education (across all disciplines)	
	Bachelor of Engineering with Honors	<i>Jun. 2019</i>
	• Awarded by Nanjing University of Science and Technology (top 5%)	
	NJUST Best Bachelor Thesis Award	<i>Jun. 2019</i>
	• Awarded by Nanjing University of Science and Technology (across all disciplines)	
	National Scholarship (Awarded Three Times)	<i>Nov. 2018 / Nov. 2017 / Nov. 2016</i>
	• Awarded by Ministry of Education of the People's Republic of China (top 1%)	
	NJUST Special-Class Scholarship (Awarded Six Times)	<i>Mar. & Sep. 2018 / 2017 / 2016</i>
	• Awarded by Nanjing University of Science and Technology (top 1%)	

Interests & Skills	Area of Interest:
	• Networked Systems, Wireless Communication, Machine Learning, Stochastic Control
	Computer Skills:
	• C/C++, Python, MATLAB, VHDL