SHEN LEMING

CONTACT INFORMATION

Department: Department of Computing E-mail: leming.shen@connect.polyu.hk

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Research Interest: **Large Language Models, Edge/Mobile Computing, IoT Applications**

Address: QT 404, Chow Yei Ching Building, The Hong Kong Polytechnic University, Hong Kong SAR, China.

EDUCATION

The Hong Kong Polytechnic University, Hong Kong, China (QS 2025: 57) *2022.08 - present*
Supervisor: Prof. Yuanqing Zheng
PhD in Networking and Mobile Computing, Department of Computing

Zhejiang University, Hangzhou, China (QS 2025: 47) *2018.08 - 2022.06*
Supervisor: Prof. Jinsong Han
Bachelor's Degree, Software Engineering, College of Computer Science and Technology

PUBLICATIONS

Conferences

1. [**MobiCom'25**] **Leming Shen**, Qiang Yang, Yuanqing Zheng, and Mo Li. *AutoIOT: LLM-Driven Automated Natural Language Programming for AIoT Applications.* In The 31st Annual International Conference on Mobile Computing and Networking, MobiCom, Nov. 4-8, 2025, Hong Kong, China.

2. [**SenSys'25**] **Leming Shen**, Qiang Yang, Xinyu Huang, Zijing Ma, and Yuanqing Zheng. *GPIoT: Tailoring Small Language Models for IoT Program Synthesis and Development.* In The 23rd ACM Conference on Embedded Networked Sensor Systems, SenSys, May 6-9, 2025, Irvine, USA.

3. [**MobiSys'24**] **Leming Shen**, Qiang Yang, Kaiyan Cui, Yuanqing Zheng, Xiaoyong Wei, Jianwei Liu, and Jinsong Han. *FedConv: A Learning-on-Model Paradigm for Heterogeneous Federated Clients.* In Proceedings of the ACM International Conference on Mobile Systems, Applications, and Services, MobiSys, June 3-7, Tokyo, Japan.

4. [**INFOCOM'24**] Kaiyan Cui, **Leming Shen**, Yuanqing Zheng, Fu Xiao, Jinsong Han. *Talk2Radar: Talking to mmWave Radars via Smartphone Speaker.* In Proceedings of the IEEE International Conference on Computer Communications, INFOCOM, May 20–23, 2024, Vancouver, Canada.

5. [**SenSys'22**] Ming Gao, Lingfeng Zhang, **Leming Shen**, Xiang Zou, Jinsong Han, Feng Lin, and Kui Ren. *KITE: Exploring the practical threat from acoustic transduction attacks on inertial sensors.* In Proceedings of the 20th ACM Conference on Embedded Networked Sensor Systems, SenSys, page 696–709, New York, NY, USA, 2023. Association for Computing Machinery.

6. [**ICDCS'21**] Jianwei Liu, Wenfan Song, **Leming Shen**, Jinsong Han, Xian Xu, Kui Ren, *MandiPass: Secure and Usable User Authentication via Earphone IMU.* 41st IEEE International Conference on Distributed Computing Systems, ICDCS, July 7-10, Washington DC, USA.

Journals

1. [**TMC**] Kaiyan Cui, Qiang Yang, **Leming Shen**, Yuanqing Zheng, Fu Xiao, Jinsong Han, *Towards ISAC-Empowered mmWave Radars by Capturing Modulated Vibrations.* IEEE Transactions on Mobile Computing (2024).

2. [**TMC**] Ming Gao, Lingfeng Zhang, **Leming Shen**, Xiang Zou, Jinsong Han, Feng Lin, Kui Ren, *Exploring Practical Acoustic Transduction Attacks on Inertial Sensors in MDOF Systems*. IEEE Transactions on Mobile Computing (2023).

3. [**TMC**] Jianwei Liu, Wenfan Song, **Leming Shen**, Jinsong Han, Kui Ren, *Secure User Verification and Continuous Authentication via Earphone IMU*. IEEE Transactions on Mobile Computing (2023)

Short Papers

1. [**MobiCom'24**] **Leming Shen**, and Yuanqing Zheng. *IoTCoder: A Copilot for IoT Application Development*. In Proceedings of the 30th Annual International Conference on Mobile Computing and Networking, MobiCom'24, Washington, D.C., USA.

2. [**ICDCS'23**] **Leming Shen**, Yuanqing Zheng, *PhD Symposium: FedDM: Data and Model Heterogeneity-Aware Federated Learning via Dynamic Weight Sharing*. 43st IEEE International Conference on Distributed Computing Systems, ICDCS 2023, Hong Kong, China, July 18-21, 2023.

3. [**SenSys'22**] Kaiyan Cui, Qiang Yang, **Leming Shen**, Yuanqing Zheng, and Jinsong Han. *Poster Abstract: Integrated sensing and communication between daily devices and mmwave radars*. In Proceedings of the 20th ACM Conference on Embedded Networked Sensor Systems, SenSys '22, page 831–832, New York, NY, USA, 2023. Association for Computing Machinery.

PROFESSIONAL SERVICES

- Program committee of ACM SenSys 2024 Artifact Evaluation.
- Program committee of ACM MobiSys 2024 Artifact Evaluation.
- Invited reviewer of IEEE Transactions on Mobile Computing (TMC) 2024.
- Invited reviewer of ACM Transactions on Senosr Networks (ToSN) 2024.
- Invited reviewer of IEEE Transactions on Wireless Communications (TWC) 2023, 2024.
- Invited reviewer of ACM IMWUT/UbiComp 2023, 2024.
- Microsoft Learn Student Ambassadors, 2022.
- Microsoft Student Partners, 2020, 2021.

HONORS & AWARDS

1. ACM SenSys **Distinguished Artifact Evaluation Reviewer Award**, 2024.
2. ACM MobiSys **Distinguished Artifact Evaluation Reviewer Award**, 2024.
3. ACM MobiSys Student Travel Grant, 2024
4. **Outstanding Graduates of Zhejiang University**, awarded on Undergraduate period, 2022.
5. **Excellent Undergraduate Graduation Thesis of Zhejiang University**, *Research and Implementation of Meta-learning-based Wi-Fi Activity Recognition System*, 2022

SKILLS

- **Langauges:** English, mandarin
- **Programming:** Python, C++, C, C#, Java, MATLAB, Go, SQL, JavaScript, HTML, CSS, Pascal, LaTex, Markdown, JSON, XML
- **Platforms & Frameworks:** Flower, LangChain, Django, OpenAI, Vue, React, Flask

TEACHING

- Teaching Assistant, COMP5434 Big Data Computing, 2024 Fall.

- Teaching Assistant, COMP5311 Internet Infrastructure And Protocols, 2022 Fall, 2023 Fall.

- Teaching Assistant, COMP1011 Programming Fundamentals, 2023 Spring, 2024 Spring, 2025 Spring.