

Yingao (Elaine) Yao

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Education

- Sept. 2021– May. 2022 (expected) **MASc student in Electrical and Computer Engineering.**
University of British Columbia, Vancouver, Canada
- 2017–2021 : **B.E. in Electrical and Computer Engineering.**
University of Electronic Science and Technology of China, Sichuan, China
GPA: 3.96/4.0

Publications

- CCS'22 **Poster: May the Swarm Be With You: Sensor Spoofing Attacks Against Drone Swarms,**
Yingao (Elaine) Yao, Pritam Dash, Karthik Pattabiraman.
ACM Conference on Computer and Communications Security (CCS), Los Angeles, U.S.A.

Work Experience

- 2021–present **Research Assistant**, *Dependable Systems Lab*, Univerisity of British Columbia, Vancouver, Canada.
Supervisor: Karthik Pattabiraman
- 2021–present **Teaching Assistant**, *CPEN 333 - Software Engineering*, Univerisity of British Columbia, Vancouver, Canada.
Supervisor: Farshid Agharebparast

Projects

- Sept,2021 – **Encryption in ICS Networks: Is it enough?**
Dec,2021 Designed the side-channel attacks in Industrial Control Systems (ICS) with encrypted network protocols.
The attackers are able to drop essential packets based on the observed network patterns.
Advisor : Aastha Mehta
- Feb,2022 – **Is the Synthesized Scene in the Autonomous Driving Realistic?**
April,2022 Evaluated the feasibility of the MSF-ADV attack on autonomous driving cars under different environmental settings.
Advisor : Karthik Pattabiranman

Fellowships & Awards

- 2020 **Outstanding Winner (0.2%)** in COMAP Interdisciplinary Contest in Modeling
- 2020 **Thanksgiving Scholarship for Modern Scientists** CAD 4,000, 12 per school per year
- 2020 **National Scholarship** CAD 1,600, for top 1.5% students per school
- 2019 **National Second Prize (3%)** in China Undergraduate Mathematical Contest in Modeling
- 2018 **Third Place** in Microsoft Student Club Hackathon

Computer skills

- Programming Python, Matlab, Bash, C++, Java, Verilog
- Tools MATLAB&Simulink, ArduPilot, PX4, Gazebo, Linux, Git