

MIKE WONG

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RESEARCH INTERESTS

Computer systems and networks, program analysis, ML+systems, video analytics

EDUCATION

Princeton University Ph.D. in Computer Science Advisor: Ravi Netravali	<i>Aug 2021 – May 2027 (expected)</i>
Princeton University M.A. in Computer Science	<i>Aug 2021 – Sep 2023</i>
New York University B.A. in Computer Science with a minor in Mathematics	<i>Aug 2015 – Dec 2019</i>

EXPERIENCE

Graduate Research Assistant , Princeton University Advisor: Ravi Netravali	<i>Aug 2021 - Present</i>
Research Intern , Microsoft Research Cloud Systems Reliability Research Group	<i>May 2025 - Aug 2025</i>
Research Intern , Microsoft Research Networking Research Group	<i>June 2022 - Aug 2022</i>
Computer Scientist , National Security Agency Worked on Ghidra and ML-driven malware analysis	<i>Feb 2020 - Aug 2021</i>
Research Assistant , Rutgers University Advisor: Srinivas Narayana	<i>June 2020 - Jan 2021</i>
Research Assistant , Courant Institute of Mathematical Sciences Advisor: Anirudh Sivaraman	<i>May 2019 - June 2020</i>
Computer Science Co-op , National Security Agency	<i>Aug 2016 - Dec 2019</i>

PUBLICATIONS

Peer-Reviewed Conference Papers

- MadEye: Boosting Live Video Analytics Accuracy with Adaptive Camera Configurations**
Mike Wong, Murali Ramanujam, Guha Balakrishnan, Ravi Netravali
USENIX NSDI 2024
[Paper](#)
- NetVigil: Robust and Low-Cost Anomaly Detection for East-West Data Center Security**
Kevin Hsieh*, **Mike Wong***, Santiago Segarra, Sathiya Kumaran Mani, Trevor Eberl, Anatoliy Panasyuk, Ravi Netravali, Ranveer Chandra, Srikanth Kandula (* equal contribution)
USENIX NSDI 2024
[Paper](#)
- Marvolo: Programmatic Data Augmentation for Practical ML-Driven Malware Detection**
Mike Wong, Edward Raff, James Holt, Ravi Netravali
ECML PKDD 2023

Previous version in AI4Cyber/MLHat at KDD 2022

[Paper](#)

4. **Synthesizing Safe and Efficient Kernel Extensions for Packet Processing**

Qiongwen Xu, **Michael D. Wong**, Tanvi Wagle, Srinivas Narayana, Anirudh Sivaraman

ACM SIGCOMM 2021

Also accepted as a talk to the BPF & Networking Summit at Linux Plumbers Conference 2021

[Paper](#)

5. **Testing Compilers for Programmable Switches Through Switch Hardware Simulation**

Michael D. Wong, Aatish Kishan Varma, Anirudh Sivaraman

ACM CoNEXT 2020

[Paper](#)

6. **Switch Code Generation Using Program Synthesis**

Xiangyu Gao, Taegyun Kim, **Michael D. Wong**, Divya Raghunathan, Aatish Kishan Varma, Pravein Govindan Kannan, Anirudh Sivaraman, Srinivas Narayana, Aarti Gupta

ACM SIGCOMM 2020

[Paper](#)

Peer-Reviewed Workshop Papers

1. **GPUs, CPUs, and ... NICs: Rethinking the Network's Role in Serving Complex AI Pipelines**

Mike Wong, Ulysses Butler, Emma Farkash, Praveen Tammana, Anirudh Sivaraman, Ravi Netravali
In submission

2. **Bolstering Binary Datasets for Malware Detection Through Programmatic Data Augmentation**

Michael D. Wong, Edward Raff, James Holt, and Ravi Netravali

AI4Cyber/MLHat at KDD 2022

TEACHING

Instructor , Prison Teaching Initiative (teaching incarcerated students) MATH 101: Number Systems	<i>Jan 2024 - Present</i>
Teaching Assistant , Princeton University COS 316: Principles of Computer System Design	<i>Aug 2023 - Dec 2023</i>
Teaching Assistant , Princeton University COS 561: Advanced Computer Networks	<i>Jan 2023 - May 2023</i>

HONORS/AWARDS

NSDI Travel Grant , USENIX Association	<i>Apr 2024</i>
Ross Fellowship (declined) , Purdue University	<i>Feb 2021</i>
University Honors Scholar , New York University	<i>Dec 2019</i>
Dean's List , New York University	<i>Aug 2016 - June 2017</i>
U.S. Air Force ROTC Scholarship , U.S. Air Force	<i>June 2015</i>