

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

Aug 2021 – May 2026 (expected)

New York University

B.A. in Computer Science

Aug 2015 – Dec 2019

EXPERIENCE

Graduate Research Assistant, Princeton University

Advisor: Ravi Netravali

Aug 2021 - Present

Research Intern, Microsoft Research

Networking Research Group

June 2022 - Aug 2022

Computer Scientist, National Security Agency

Feb 2020 - Aug 2021

Research Assistant, Rutgers University

Advisor: Srinivas Narayana

June 2020 - Jan 2021

Research Assistant, Courant Institute of Mathematical Sciences

Advisor: Anirudh Sivaraman

May 2019 - June 2020

Computer Science Co-op, National Security Agency

Aug 2016 - Dec 2019

PUBLICATIONS

Peer-Reviewed Conference Papers

1. **MadEye: Boosting Live Video Analytics Accuracy with Adaptive Camera Configurations**

Mike Wong, Murali Ramanujam, Guha Balakrishnan, Ravi Netravali

USENIX NSDI 2024

[Paper](#)

2. **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](#)

3. **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

Jan 2024 - Present

MATH 101 Number Systems

Teaching Assistant, Princeton University

Aug 2023 - Dec 2023

COS 316: Principles of Computer System Design

Teaching Assistant, Princeton University

Jan 2023 - May 2023

COS 561: Advanced Computer Networks

HONORS/AWARDS

NSDI Travel Grant, USENIX Association

Apr 2024

Ross Fellowship (declined), Purdue University

Feb 2021

University Honors Scholar, New York University

Dec 2019

Dean's List, New York University

Aug 2016 - June 2017

U.S. Air Force ROTC Scholarship, U.S. Air Force

June 2015