

# MIKE WONG

mikedwong@cs.princeton.edu  $\diamond$  <https://michaeldwong.github.io>

## RESEARCH INTERESTS

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

## EDUCATION

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**Princeton University** *Aug 2021 – May 2026 (expected)*  
Ph.D. in Computer Science  
Advisor: Ravi Netravali

**New York University** *Aug 2015 – Dec 2019*  
B.A. in Computer Science

## EXPERIENCE

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**Graduate Research Assistant**, Princeton University *Aug 2021 - Present*  
Advisor: Ravi Netravali

**Research Intern**, Microsoft Research *June 2022 - Aug 2022*  
Networking Research Group

**Computer Scientist**, National Security Agency *Feb 2020 - Aug 2021*

**Research Assistant**, Rutgers University *June 2020 - Jan 2021*  
Advisor: Srinivas Narayana

**Research Assistant**, Courant Institute of Mathematical Sciences *May 2019 - June 2020*  
Advisor: Anirudh Sivaraman

**Computer Science Co-op**, National Security Agency *Aug 2016 - Dec 2019*

## PUBLICATIONS

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### 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, Anatolii 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](#)
- 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. **In-Network Data Processing for Edge AI**

Mike Wong, Ulysses Butler, 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**

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**Teaching Assistant**, Princeton University  
COS 316: Principles of Computer System Design

*Aug 2023 - Dec 2023*

**Teaching Assistant**, Princeton University  
COS 561: Advanced Computer Networks

*Jan 2023 - May 2023*

**HONORS/AWARDS**

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**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*