

# Shannon Veitch

## Education

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**ETH Zürich**     Doctoral Student *2022 – present*  
Applied Cryptography Group. Advisor: Kenny Paterson

**University of Waterloo**     MMath, Computer Science *2020 – 2022*  
Cryptography, Security, and Privacy (CrySP) Lab. Advisor: Doug Stinson  
Thesis: *Contextualizing Alternative Models of Secret Sharing*

**University of Waterloo**     BMath, Combinatorics and Optimization *2016 – 2020*  
Graduated With Distinction — Dean's Honours List

## Publications

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1. T. Humphries, R. A. Mahdavi, S. Veitch, and F. Kerschbaum. Selective MPC: Distributed Computation of Differentially Private Key-Value Statistics. *To appear at CCS 2022*.
2. N. Bindel, D. Stebila, and S. Veitch. Improved attacks against key reuse in learning with errors key exchange. In Patrick Longa, Carla Ràfols, editors, *Proc. 7th International Conference on Cryptology and Information Security in Latin America (LATINCRYPT) 2021, LNCS*. Springer, October 2021.
3. D. R. Stinson and S. Veitch. Block-avoiding point sequencings of arbitrary length in Steiner triple systems. *Australasian Journal of Combinatorics* **77** (2020), 87-99.
4. D. Kreher, D. R. Stinson, and S. Veitch. Block-avoiding point sequencings of Mendelsohn triple systems. *Discrete Mathematics* **343** (2020), 111799.
5. D. Kreher, D. R. Stinson, and S. Veitch. Block-avoiding point sequencings of directed triple systems. *Discrete Mathematics* **343** (2020), 111773.
6. C. J. Colbourn, D. R. Stinson, and S. Veitch. Constructions of optimal orthogonal arrays with repeated rows. *Discrete Mathematics* **342** (2019), 2455-2466.

## Technical Reports

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7. D. Kreher, D. R. Stinson, and S. Veitch. Good sequencings for small Mendelsohn triple systems. 121 pages. September 2019.
8. D. Kreher, D. R. Stinson, and S. Veitch. Good sequencings for small directed triple systems. 305 pages. July 2019.

## Employment History

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**Dept. of Combinatorics and Optimization, University of Waterloo** *May – Aug. 2020*  
Undergraduate Research Assistant, Supervised by Professor Douglas Stebila

**Dept. of Combinatorics and Optimization, University of Waterloo** *Sept. – Dec. 2019*  
Undergraduate Research Assistant, Supervised by Professor David Jao

**David R. Cheriton School of Computer Science, University of Waterloo** *May – Aug. 2019*  
**Cryptography, Security, and Privacy (CrySP) Lab**  
Undergraduate Research Assistant, Supervised by Professor Douglas Stinson

**ISARA Corporation** *Jan. – Apr. 2019*  
Security Developer, Intern

David R. Cheriton School of Computer Science, University of Waterloo Cryptography, Security, and Privacy (CrySP) Lab Undergraduate Research Assistant, Supervised by Professor Douglas Stinson	<i>Sept. – Dec. 2018</i>
Cisco Systems Software Developer, Intern	<i>May – Aug. 2018</i>

## Academic Service

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**Organizing Committee**  
IEEE ISTAS 2021 (Fundraising & Sponsorship), StarCon 2019 (Speakers Team)

**External Reviewer**  
ACISP 2021

## Teaching Assistantships

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<b>SYDE361 Engineering Design</b> University of Waterloo	<i>Spring 2022</i>
<b>SYDE362 Capstone Project</b> University of Waterloo	<i>Winter 2022</i>
<b>SYDE161 Introduction to Design</b> University of Waterloo	<i>Fall 2021</i>
<b>CS458/658 Computer Security and Privacy</b> University of Waterloo	<i>Spring 2021</i>
<b>CS458/658 Computer Security and Privacy</b> University of Waterloo	<i>Winter 2021</i>
<b>CS135 Designing Functional Programs</b> University of Waterloo	<i>Fall 2020</i>
<b>MATH135 Algebra for Honours Mathematics</b> University of Waterloo	<i>Winter 2018</i>
<b>MATH135 Algebra for Honours Mathematics</b> University of Waterloo	<i>Fall 2017</i>

## Awards

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<b>Ontario Graduate Scholarship (OGS)</b>	<i>2021 – 2022</i>
<b>David R. Cheriton Graduate Scholarship</b> University of Waterloo	<i>2020 – 2022</i>
<b>President's Graduate Scholarship</b> University of Waterloo	<i>2020 – 2022</i>
<b>Cybersecurity and Privacy Excellence Graduate Scholarship</b> CPI	<i>2020</i>
<b>Ontario Graduate Scholarship (OGS)</b> (declined)	<i>2020</i>
<b>NSERC Alexander Graham Bell Canada Graduate Scholarship (CGS-M)</b>	<i>2020</i>
<b>CRA Outstanding Undergraduate Researcher Award (Honorable Mention)</b>	<i>2020</i>
<b>NSERC Undergraduate Student Research Award</b>	<i>2020</i>
<b>President's Research Award</b> University of Waterloo	<i>2020</i>
<b>NSERC Experience Award</b>	<i>2019</i>
<b>President's Research Award</b> University of Waterloo	<i>2019</i>
<b>President's Scholarship of Distinction</b> University of Waterloo	<i>2017</i>

## Community Service

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**CEEA2022: Shift to Social Good Workshop Track** *2022*  
Assisted in presenting *Mending Engineering: A Workshop to Start Radically Repairing Engineering's Relationship with the Rest of the World.*

<b>Critical Tech Talk: AI Five Ways</b> Assisted in setup and filming of panel talk.	<i>2022</i>
<b>inteGIRLS Toronto</b> Guest Speaker at Spring Math Competition	<i>2021</i>
<b>Cybersecurity and Privacy Institute Speaker Series</b> Panel with Jennifer Whitson, Bonnie Butlin, and Cat Coode on Women in Tech.	<i>2020</i>
<b>CEMC Workshop in Computer Science for Young Women</b> Assisted in running a session on Network Privacy and Security.	<i>2019</i>
<b>UW Faculty of Mathematics</b> Math Faculty Ambassador, Panel on Majors in Mathematics.	<i>2018</i>
<b>UW Capture the Flag (CTF) Club</b> Presented a workshop on Computer Networks.	<i>2017</i>