

# Anna Schmedding

Curriculum Vitae

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## Education

- 2019 – **William and Mary**, *Ph.D. (in progress)*, Computer Science.
- 5/2021 **William and Mary**, *M.S.*, Computer Science.
- 5/2019 **Syracuse University**, *M.S.*, Mathematics.
- 12/2016 **York College of Pennsylvania**, *B.S.*, Computer Science and Mathematics.

## Research Interests

**Reliability and performance**, *autonomous vehicles, convolutional neural networks, and GPUs.*

## Publications

### Refereed Publications

- [A1] **Anna Schmedding**, Lishan Yang, Riccardo Pincioli, and Evgenia Smirni. Geospread: an epidemic spread modeling tool for COVID-19 using mobility data. In *GoodIT 2022: ACM International Conference on Information Technology for Social Good, Limassol, Cyprus, September 7 - 9, 2022*, pages 125–131. ACM, 2022.
- [A2] Xugui Zhou, **Anna Schmedding**, Haotian Ren, Lishan Yang, Philip Schowitz, Evgenia Smirni, and Homa Alemzadeh. Strategic safety-critical attacks against an advanced driver assistance system. In *52nd Annual IEEE/IFIP International Conference on Dependable Systems and Networks, DSN 2022, Baltimore, MD, USA, June 27-30, 2022*, pages 79–87. IEEE, 2022.

### Refereed Posters and Abstracts

- [B1] **Anna Schmedding**. Classification and protection of critical weights in CNNs. In *The International Conference for High Performance Computing, Networking, Storage, and Analysis (SC), the Women in High Performance Computing Workshop (WHPC) – To Appear*, 2022.
- [B2] Lishan Yang, **Anna Schmedding**, Riccardo Pincioli, and Evgenia Smirni. Simulating COVID-19 containment measures using the South Korean patient data: poster abstract. In *SenSys '20: The 18th ACM Conference on Embedded Networked Sensor Systems, Virtual Event, Japan, November 16-19, 2020*, pages 782–783. ACM, 2020.

### Other Publications

- [C1] **Anna Schmedding**. Epidemic Spread Modeling For COVID-19 Using Hard Data. Master's thesis, William and Mary, US, 2021.

### Under Submission

- [D1] **Anna Schmedding**, Lishan Yang, Riccardo Pincioli, and Evgenia Smirni. Epidemic spread modeling for COVID-19 using mobility data. *Under Submission*, 2022.

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## Computer Skills

**Experience**, *Simulation, Data analysis, Machine learning, Failure analysis.*

**Languages**, *Python, C, C++, Java, Unix Shell, SQL, Matlab, OpenGL, Awk, Lua, Assembly, Visual Basic.*

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## Professional Experience

- 2021 – **Research Assistant**, *William and Mary*, Reliability analysis of convolutional neural networks and autonomous vehicle systems. Selective protection schemes and resilience analysis.
- 2021 **ORISE Graduate Intern**, *Oak Ridge National Lab*, GPU failure analysis, modeling, and prediction. Primarily focused on double-bit errors and page retirement events on GPUs in the Summit supercomputer.
- 2019 – 2021 **Graduate Teaching Assistant**, *William and Mary*, Computational Problem Solving (Spring 2020, Fall 2020, Spring 2021); Programming for Data Science (Fall 2019) – Python lab instructor and grader.
- 2018 – 2019 **Instructor on Record**, *Syracuse University*, Calculus I (Fall 2018 and Spring 2019) – Lecture; Recitation; Lesson planning; Creating and grading quizzes, exams, homework assignments, and worksheets.
- 2018 – 2019 **Math Clinic/Mathematics Consultant**, *Syracuse University*, Tutoring and homework help – Algebra, Precalculus, Calculus I, II, and III, Probability and Statistics.
- 2017 – 2018 **Graduate Teaching Assistant**, *Syracuse University*, Probability and Statistics for the Liberal Arts I and II (Fall 2017 and Spring 2018 resp.) – Minitab lab instructor; Grader.
- 2012 – 2017 **MIS Intern**, *The National Alcohol Beverage Control Association (NABCA)*, Computer performance analysis; ETL; Process automation; Data manipulation and validation; All phases of the software development lifecycle including requirements, testing, deployment, documentation, training, support, and enhancements.

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## Grants and Funding

- 6/2022 **DSN Travel Grant**, \$975.
- 2021, 2022 **Virginia Space Grant Consortium (VSGC) Graduate Research Fellowship**, \$6,000 per year, Epidemic Spread Modeling for COVID-19 Using Hard Data.
- 6/2021 **Sigmatrics Registration Grant**.
- 5/2021 **GAP Fellowship**, \$1,125.
- 5/2021 **CSCI Incentive Fellowship**, \$1,550.
- 5/2020 **Summer Graduate Research Fellowship**, \$6,750.
- 2019, 2020 **Graduate Studies Research & Recruitment Fellowship**, \$3,000 per year.

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## Service

- 2023 **Web Chair**, *Sigmatrics 2023*.
- 2022 **Session Chair and Poster Judge**, *CAPWIC 2022*.
- 2022 **Sub-reviewer**, *Sigmatrics 2022, DSN 2022*.
- 2021 **Sub-reviewer**, *DSN 2021, Sigmatrics 2021, IEEE Communications Magazine – July 2021*.

2021 **Poster Judge**, *CAPWIC 2021*.

2020 **Sub-reviewer**, *Performance 2020*.

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## Organizations

2021 – **ACM, ACM–W, IEEE**.

2021 – **WHPC–Virginia (Women in High Performance Computing in Virginia)**.

2018 – 2019 **Association for Women in Mathematics (AWM)**.

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## References

**Evgenia Smirni**, *Professor*, [esmirni@cs.wm.edu](mailto:esmirni@cs.wm.edu).

**Amy Grollman**, *NABCA*, [amy.grollman@nabca.org](mailto:amy.grollman@nabca.org).