Rachel McAmis

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EDUCATION

University of Washington, Seattle **Cumulative GPA**: 3.84

Paul G. Allen Center for Computer Science & Engineering, Interdisciplinary Honors

September 2018 – June 2022, B.S. in Computer Science with Interdisciplinary Honors

Relevant Technical Courses: Software Design and Implementation, Data Structures and Parallelism, Security, Hardware Security, Cryptography, Security Research Seminar, Algorithms, Modern Algorithms, Hardware/Software Interface, Systems Programming, Calculus, Linear Algebra, Differential Equations, Artificial Intelligence, Quantum Computing, Theory of Computation, Computer Vision.

PUBLICATIONS

L. Organick, B. H. Nguyen, R. MCAMIS et al. "An Empirical Comparison of Preservation Methods for Synthetic DNA Data Storage." Small Methods (2021).

E. Zeng, R. MCAMIS, T. Kohno, F. Roesner. "What Factors Affect Targeting and Bids in Online Advertising? A Field Measurement Study." IMC (2022).

R. MCAMIS, T. Kohno. "The Writing on the Wall: Personal Information in (not so) Private Real Estate." Usenix Security (2023).

Under submission: R. MCAMIS, B. Durak, M. Chase et al. "Handling Identity and Fraud in the Metaverse."

RESEARCH EXPERIENCE

Undergraduate Research Assistant UW Security and Privacy Research Lab, Indoor Mapping

September 2021 – June 2022

- Independent project advised by faculty exploring the sensitive information revealed in the emerging technology of 3D indoor mapping. Paper under preparation.

Skills used: Python, Qualitative coding

Undergraduate Research Assistant UW Security and Privacy Research Lab, Ad Prices

September 2020 – June 2022

- Exploring the relationships between pricing/topic of ads and ad targeting, using a browser extension to study information on real users' browsing profiles. Paper under submission.

Skills used: TypeScript, Web programming backend and frontend, Statistics

Undergraduate Research Assistant UW Security and Privacy Research Lab, Cybersecurity-Bio team

December 2019 - June 2020

- Exploiting different components of a liquid handling robot (used in biology, research, pharmaceuticals)

Skills used: Wireshark, Python, Reverse Engineering, Computer Architecture/Security

Undergraduate Research Assistant UW Molecular Information Systems Lab (MISL)

May 2019 - January 2020

- 3rd author in publication, Paid research on DNA archival storage experiments error analysis

Skills used: Python, Data Visualization, Statistical Analysis, Matplotlib, Git

OTHER EXPERIENCE

SWE Intern – Microsoft Security, Compliance, and Management

June 2021 - September 2021

- Implemented app to automatically rotate important secrets for Microsoft Threat Experts

- Decreased Azure service outages and manual secret rotation for engineers

Solutions Architect Intern—Amazon Web Services

June 2020 - September 2020

- Implemented AWS infrastructure solution proof-of-concept for restaurant chain

- Acted as project manager for other interns and developed AWS teaching tools to directly impact hundreds to thousands of partners

Skills used: AWS infrastructure/development

SKILLS

Proficient: Solutions Architect Associate Certified | Azure, AWS | Python, Java, C, CSS HTML | GitHub | Wireshark | LaTeX | Linux/Command Line | TypeScript

In Progress: C++, Android apps, SQL injection, Buffer overflow, Cryptography

ORGANIZATIONS

Team Type 1 Diabetes Ambassador 2018-2019| ACM CSE Student Mentor | Club Northwest Running (15 hrs/week) | Batman's Kitchen (UW Hacking Club) 2018-2019| American Indian Society of Engineering and Science (AISES)

HONORS

HS Valedictorian | *Certifications*: Seal of biliteracy | *Scholarships*: Team Type 1 (type 1 diabetic athletes), Verplank (four-year for type 1 diabetic athletes), AISES Chevron 2018 and 2020, UW Mary Gates Honors (two years full-ride), Rotary, AISES Video Gaming Technologies, PEMCO, Chickasaw Nation Higher Education grant, Sound Credit Union