

Evan T. West

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LINKS

<https://etwest.github.io/>

<https://github.com/etwest>

<https://www.linkedin.com/in/evantwest/>

EDUCATION

Doctor of Philosophy in Computer Science

Since 2020

Stony Brook University

Advisor: Dr. Michael Bender

Degree in Progress

Bachelor of Science in Computer Science, with Honors

2019

University of California, Santa Cruz

Thesis: Database Techniques for Efficient Network Monitoring and Analysis

RESEARCH AREA AND EXPERIENCE

My research takes place at the intersection of algorithms theory and the application of these algorithms to design systems that process big data and improve memory management. My current research projects are on graph streaming, external memory, machine learning augmentation, caching, and address translation.

Graduate Research

Since 2020

Stony Brook University

During my time at Stony Brook I have collaborated with researchers from across academia and industry on a variety of projects. I design experiments; develop, analyze, and implement algorithms; and publish papers at top-tier theory and systems conferences.

Undergraduate Research

2018-2019

University of California at Santa Cruz

As part of the Intra-Networking Research Group I received a grant from the NSF Research Experience for Undergrads program. I worked on Panther, a system of small IoT devices designed for the early detection of forest fires and weather monitoring. I was responsible for building and testing the early prototypes.

TEACHING & ADVISING

Teaching Assistant 2020-2021

- Held office hours, led other TAs in writing grading scripts, and graded homework and exams.
- TA for Systems Fundamentals I, a course on assembly language, and Systems Fundamentals II, a course on C programming.

CMPS 42A 2018

- Organized the first Student Directed Seminar taught by UC Santa Cruz's computer science department
- Taught lectures in number theory, cryptography, proofs, and information theory to a class of over 30 undergraduate students.

Undergraduate Tutor 2017-2019

- Assisted a TA in running labs for undergrad students.
- Tutored for an assembly language course, and a distributed systems course.

PUBLICATIONS

Exploring the Landscape of Distributed Graph Sketching Upcoming

SIAM Symposium on Algorithm Engineering and Experiments (ALENEX '25)

Mosaic Pages: Big TLB Reach With Small Pages 2024

Top Picks from the 2023 Computer Architecture Conferences

GraphZeppelin: How to Find Connected Components (Even When Graphs Are Dense, Dynamic, and Massive) 2024

ACM Transactions on Database Systems (TODS)

Increment-and-Freeze: Every Cache, Everywhere, All of the Time 2023

35th ACM Symposium on Parallelism in Algorithms and Architectures (SPAA '23)

Mosaic Pages: Big TLB Reach with Small Pages 2023

The 2023 Intl. Conf. on Architectural Support for Programming Languages and Operating Systems (ASPLOS'23)

GraphZeppelin: Storage-Friendly Sketching for Connected Components on Dynamic Graph Streams 2022

2022 Intl. Conf. on Management of Data (SIGMOD '22)

Paging and the Address-Translation Problem 2021

33rd ACM Symposium on Parallelism in Algorithms and Architectures (SPAA '21)

PROFESSIONAL EXPERIENCE

Intern — Member of Technical Staff

2023

VMware Research Group

- Integration of DBSP, a system for quickly computing database views, with SplinterDB a persistent key-value store.
- DBSP is fast in-memory but slow once data exceeds the size of RAM. Our goal was to use SplinterDB to achieve high operation throughput on disk.
- Modified SplinterDB to support backwards iteration and a rust API and integrated with DBSP

Research and Development Intern

2018-2020

Sandia National Laboratories

- Primary developer of Diventi, a database for indexing network connection logs.
- Wrote high performance code that ingested a stream at the rate of network traffic. while providing sub-second query access across the entire dataset. This project was an application of research developed by my advisor, Professor Bender, and others.

HONORS & AWARDS

BIAS-NRT Fellow

2023-2025

Stony Brook University

Nisha and Vinod K. Singhi Graduate Fellowship Award

2023

Stony Brook University

Distinguished Paper Award

2023

Mosaic Pages: Big TLB Reach with Small Pages (ASPLOS '23)

GAANN Fellowship

2021-2022

Stony Brook University

Dean's List

2017-2019

University of California, Santa Cruz

Eagle Scout

2016

Boy Scouts of America

SKILLS

- Algorithm Design and Analysis
- Academic Writing
- Teaching
- Programming and Scripting Languages: Bash, C, C++, Haskell, Python, Rust, etc.
- Version Control Systems and Code Management
- Proficient Across Major Operating Systems

REFERENCES

Dr. Michael Bender, Professor of Computer Science

Department of Computer Science

Stony Brook University

(631)632-7835, bender@cs.stonybrook.edu

Dr. Rob Johnson, Senior Staff Researcher

Broadcom-VMware Research Group

(631)691-9584, rob@robjohnson.io

Dr. Bradley C. Kuszmaul, Software Engineer

kuszmaul@gmail.com

Dr. Seshadhri Comandur, Professor of Computer Science

Department of Computer Science and Engineering

University of California at Santa Cruz

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Dr. Thomas Kroeger, Systems and Security Researcher

Sandia National Laboratories

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