Michael J. Coblenz

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Education

Ph.D. in Computer Science, Carnegie Mellon University, 2014 - 2020
- Co-advised by Profs. Jonathan Aldrich and Brad A. Myers
- Thesis: "User-Centered Design of Principled Programming Languages"
- Completed the Future Faculty Program, Eberly Center for Teaching Excellence and Educational Innovation, Carnegie Mellon University

M.S. in Computer Science, Carnegie Mellon University, 2005 - 2006
- QPA: 3.9. Thesis: "JASPER: Facilitating Software Maintenance Activities With Explicit Task Representations." Advised by Prof. Brad A. Myers.

B.S. in Computer Science, Carnegie Mellon University, 2001 - 2005
B.S. in Mathematical Sciences (Discrete Mathematics and Logic), Carnegie Mellon University, 2001 - 2005
- Dean's list: Fall 2001, Fall 2003, Fall 2004, Spring 2005; QPA: 3.65
- Graduated with University and College Honors
- Thesis: "Using Objects of Measurement to Detect Spreadsheet Errors." Advised by Prof. Brad Myers and Prof. Frank Pfenning

Professional Experience

Basili Postdoctoral Fellow, University of Maryland. September 2020 - Present
- Mentored by Profs. Michael Hicks, Michelle Mazurek, and Adam Porter
- Created Bronze, an easy-to-use garbage collector for Rust; found that Bronze reduced task times by a factor of 3 in an experiment with 333 participants
- Leading design and implementation of Kale, which aims to make data analysis safer and easier by combining and extending key features of spreadsheets and computational notebooks
- Initiated and leading a three-university study of REST API design; the goal is to identify an empirical basis for API design guidelines and create tools to help API designers improve usability
- Conducting an observational study of Rust programmers to better understand how type system design affects usability
- Organizing the HATRA (Human Aspects of Types and Reasoning Assistants) workshop at the SPLASH conference
- Consulting on test and evaluation for the DARPA AISS (Automatic Implementation of Secure Silicon) program, which uses a blockchain to assure authenticity of hardware components

Senior Software Engineer, Apple, Inc. Cupertino, California, **September 2006 - August 2014**
- Designed, implemented, and maintained spreadsheet formula programming language for iWork, Apple's productivity suite
- Led feature design, determined requirements, and implemented spreadsheet formula language
- Led implementation and design of mathematical function library
- Designed and implemented spreadsheet dependency tracker, formula evaluation system, and components of the formula user interface
- Developed novel approaches to spreadsheet user experience, including a stronger type system, duration-type data, reference syntax and semantics, volatile function/formula evaluation, and formula entry and editing
- Worked with quality assurance team to design and implement testing mechanisms
- Architected, prototyped, and implemented systems that related to the formula system, including table data storage; concurrency control mechanisms; formula editor user interface; charting support (i.e., visual display of data); formula rewrites due to structural table changes
- Designed and implemented software that runs on x86-64 and ARM systems on three platforms and two operating systems; previously, designed and implemented for both PowerPC and x86
- Recruited, interviewed, and hired software engineering interns and full-time software engineers; managed five interns and advised several others; managed one senior software engineer.
- Interviewed job candidates and made recommendations to hiring managers
- Collaborated with a large, diverse team across several different locations

Software Engineering Intern, Apple, Inc. Summers 2003 - 2005
- Summer 2005: designed and implemented improvements in a formula system for Keynote and Pages (Pittsburgh, PA)
- Summer 2004: designed and implemented improvements in the data model for DVD Studio Pro, a DVD authoring application (Cupertino, CA)
- Summer 2003: implemented new features and fixed bugs for the next version of Keynote (Pittsburgh, PA)

Summer Intern, United States Naval Research Laboratory, Navy Center for Applied Research in Artificial Intelligence (NCARAI), Washington, D.C. **Summers 2001 - 2002**
- Developed software on a team for multimodal human-robot interaction and navigation in a complex environment; completed the American Association for Artificial Intelligence robotics challenge, and won several awards

Fellowships and Grants

Ethereum Foundation, 2020 ($64,691)
- Adapting the Obsidian programming language to work on Ethereum; conducting a corpus study to evaluate whether Obsidian detects bugs that occur in real-world Ethereum programs.

IBM PhD Fellowship, 2018-2020 ($95,000)
- Collaborated with engineers and researchers at IBM on the creation of a new programming language for programming blockchain computing platforms. 23 fellows were selected out of 340 applicants, who were nominated by their departments (7% acceptance).

IBM PhD Fellowship, 2017-2018 ($30,000)
- Collaborated with engineers and researchers at IBM on the creation of a new programming language for programming blockchain computing platforms.

Honors and Awards

- Distinguished Artifact Award, "Can Advanced Type Systems Be Usable? An Empirical Study of Ownership, Assets, and Typestate in Obsidian." OOPSLA 2020.
- **First place**, ICSE 2017 Student Research Competition. Obsidian: A Safer Blockchain Programming Language.
- National Science Foundation Graduate Research Fellowship Honorable Mention (2015)
- Eagle Scout, Boy Scouts of America; Vigil Honor, Order of the Arrow
- Mortarboard, a senior honor society (2004 – 2005)

Research Interests

My research is at the intersection of **programming languages**, **human-computer interaction**, and **software engineering**. I am developing methods of designing programming languages that result in greater programmer productivity: fewer bugs, less time to completion, or making it possible for people with less experience or background to write software effectively. I integrate methods from programming language theory with empirical methods to develop languages that are sound and can be shown empirically to be more effective for users. My dissertation work included creating Glacier, a Java extension that improves safety for Java programmers who modify immutable classes; and Obsidian, a new programming language that makes it easier to write safer smart contracts on blockchain systems. More recently, I designed and implemented Bronze, a prototype garbage collector for Rust, and found in a study of 333 participants that it can reduce task time requirements by a factor of three. I am also collaborating with undergraduate students to develop a new spreadsheet-based data analysis system to reduce the incidence of spreadsheet bugs and make sophisticated data analysis with tabular data easier. Finally, I am leading a three-university effort to study the design of REST APIs with the hope of developing an empirical basis for REST API usability.

Publications

[P32] Michael Coblenz, Michelle Mazurek, and Michael Hicks. **Does the Bronze Garbage Collector Make Rust Easier to Use? A Controlled Experiment.** https://arxiv.org/abs/2110.01098. Under review.

[P31] Timothy Mou, Michael Coblenz, and Jonathan Aldrich. **An Empirical Study of Protocols in Smart Contracts.** 2nd International Workshop on Human Aspects of Types and Reasoning Assistants (HATRA 2021) at SPLASH 2021. October 19, 2021. Chicago, IL.

[P30] Michael Coblenz. **Toward a Theory of Programming Language and Reasoning Assistant Design: Minimizing Cognitive Load**. 2nd International Workshop on Human Aspects

of Types and Reasoning Assistants (HATRA 2021) at SPLASH 2021. October 19, 2021. Chicago, IL.

[P29] Reed Oei, Michael Coblenz, and Jonathan Aldrich. **Psamathe: A DSL with Flows for Safe Blockchain Assets**. The 22nd International Symposium on Practical Aspects of Declarative Languages (co-hosted with POPL 2020). January 20-21, 2020.

[P28] Michael Coblenz, Gauri Kambhatla, Paulette Koronkevich, Jenna L. Wise, Celeste Barnaby, Joshua Sunshine, Jonathan Aldrich, and Brad A. Myers. **PLIERS: A Process that Integrates User-Centered Methods into Programming Language Design**. TOCHI. http://dx.doi.org/10.1145/3452379. (12% journal acceptance rate in 2020)

[P27] Michael Coblenz and Jonathan Aldrich. **User-Centered Programming Language Design: A Course-Based Case Study.** 1st International Workshop on Human Aspects of Types and Reasoning Assistants (HATRA 2020), at SPLASH 2020. November 18-19, 2020, online workshop.

[P26] Michael Coblenz, Reed Oei, Tyler Etzel, Paulette Koronkevich, Miles Baker, Yannick Bloem, Brad A. Myers, Joshua Sunshine, and Jonathan Aldrich. **Obsidian: Typestate and Assets for Safer Blockchain Programming**. TOPLAS vol. 42, no. 3 (2020). https://doi.org/10.1145/3417516.

[P25] Michael Coblenz, Joshua Sunshine, Jonathan Aldrich, and Brad A. Myers. **Can Advanced Type Systems Be Usable? An Empirical Study of Ownership, Assets, and Typestate in Obsidian.** PACMPL Issue OOPSLA 2020. SPLASH 2020, November 15-20, 2020. Online conference. **Distinguished Artifact Award.** PDF | Video demo | Talk

[P24] Gauri Kambhatla, Michael Coblenz, Reed Oei, Joshua Sunshine, Brad A. Myers, and Jonathan Aldrich. **A Pilot Study of the Safety and Usability of the Obsidian Blockchain Programming Language.** The Tenth Workshop on Evaluation and Usability of Programming Languages and Tools (PLATEAU 2019), at UIST 2019. October 24, 2019, New Orleans, Louisiana.

[P23] Michael Coblenz, Jonathan Aldrich, Joshua Sunshine, and Brad A. Myers, **Obsidian: Typestate and Assets for Safer Smart Contracts**, The ACM SIGPLAN conference on Systems, Programming, Languages and Applications: Software for Humanity 2019, Posters track (SPLASH 2019 Posters). October 20-25, 2019, Athens, Greece.

[P22] Michael Coblenz, Jonathan Aldrich, Joshua Sunshine, and Brad A. Myers. **Smarter Smart Contract Tools**. Proceedings of WETSEB 2019: 2nd International Workshop on Emerging Trends in Software Engineering for Blockchain. May 27, 2019, Montreal, QC, Canada.

[P21] Michael Coblenz, Jonathan Aldrich, Brad A. Myers, and Joshua Sunshine. **Interdisciplinary Programming Language Design**. Onward! 2018 Essays at SPLASH 2018. Boston, MA. November 4 - 9, 2018.

[P20] Michael Coblenz, Jonathan Aldrich, Joshua Sunshine, and Brad A. Myers. **User-Centered Design of Permissions, Typestate, and Ownership in the Obsidian Blockchain Language**, HCI for Blockchain: Studying, Designing, Critiquing and Envisioning Distributed Ledger Technologies Workshop at CHI 2018, April 22, 2018, Montreal, QC, Canada.

[P19] Celeste Barnaby, Michael Coblenz, Tyler Etzel, Eliezer Kanal, Joshua Sunshine, Brad Myers, and Jonathan Aldrich. **A User Study to Inform the Design of the Obsidian Blockchain DSL**. The Eighth Workshop on Evaluation and Usability of Programming Languages and Tools (PLATEAU 2017), at SPLASH 2017, October 23, 2017, Vancouver, BC.

[P18] Michael Coblenz, Whitney Nelson, Jonathan Aldrich, Brad Myers, and Joshua Sunshine. **Glacier: Transitive Class Immutability for Java**. Proceedings of the 39th International Conference on Software Engineering (ICSE 2017), Buenos Aires, Argentina, May 20-28, 2017. (16% acceptance rate).

[P17] Michael Coblenz. **Obsidian: A Safer Blockchain Programming Language**. Student Research Competition, Companion to The 39th International Conference on Software Engineering (ICSE 2017), Buenos Aires, Argentina, May 20-28, 2017.

[P16] Michael Coblenz. **Principles of Usable Programming Language Design**. Doctoral Symposium, Companion to The 39th International Conference on Software Engineering (ICSE 2017), Buenos Aires, Argentina, May 20-28, 2017.

[P15] Beth Yost, Michael Coblenz, Brad Myers, Joshua Sunshine, Jonathan Aldrich, Sam Weber, Forrest Shull, Matthew Patron, Melissa Heeren, Shelley Krueger, and Mark Pfaff. **Software Development Practices, Barriers in the Field and the Relationship to Software Quality**. Proceedings of ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM 2016). Ciudad Real, Spain. 5-9 September, 2016.

[P14] Michael Coblenz, Joshua Sunshine, Brad Myers, Sam Weber, and Forrest Shull. **Exploring Language Support for Immutability**. Proceedings of the 38th International Conference on Software Engineering (ICSE 2016), Austin, TX, May 14 - 22, 2016. (19% acceptance rate)

[P13] Michael Coblenz, Joshua Sunshine, Brad Myers, Sam Weber, and Forrest Shull. **Comparing Transitive to Nontransitive Object Immutability**. Proceedings of the Sixth Workshop on Evaluation and Usability of Programming Languages and Tools (PLATEAU'2015), at SPLASH 2015, October 26, 2015, Pittsburgh, PA.

[P12] Michael Coblenz, Robert Seacord, Brad Myers, Joshua Sunshine, and Jonathan Aldrich, **A Course-Based Usability Analysis of Cilk Plus and OpenMP**. Proceedings of the 2015 IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC 2015), October 18–22, 2015, Atlanta, Georgia.

[P11] Brad A. Myers, Sam Weber, and Robert Seacord, Michael Coblenz, David Keaton, Forrest J. Shull, Joshua Sunshine, and Robert Schiela. **TWC: Small: Empirical Evaluation of the Usability and Security Implications of Application Programming Interface Design** (Poster),

National Science Foundation Secure and Trustworthy Cyberspace (SaTC) Principal Investigators' Meeting (SaTCPI'15), January 5-7, 2015, Arlington, VA

[P10] Sam Weber, Robert Seacord, Forrest Shull, David Keaton, Brad Myers, and Michael Coblenz. **Empirical Evaluation of API Usability and Security**, Layered Assurance Workshop, December 8, 2014, New Orleans, LA, p. 35.

[P9] Michael Coblenz, Jonathan Aldrich, Brad Myers, and Josh Sunshine. **Considering Productivity Effects of Explicit Type Declarations**, The Fifth Workshop on Evaluation and Usability of Programming Languages and Tools (PLATEAU 2014), at SPLASH 2014, 21 Oct 2014, Portland, OR. pp. 59-61.

[P8] Michael J. Coblenz, Amy J. Ko, and Brad A. Myers. **JASPER: An Eclipse Plug-In to Facilitate Software Maintenance Tasks**. Eclipse Technology eXchange Workshop at OOPSLA 2006, October 22-23, Portland, OR, 65-69.

[P7] Amy J. Ko, Brad A. Myers, Michael J. Coblenz, and Htet Htet Aung. **An Exploratory Study of How Developers Seek, Relate, and Collect Relevant Information during Software Maintenance Tasks**. IEEE Transactions on Software Engineering, 32(12), 971-987.

[P6] Michael J. Coblenz. **JASPER: Facilitating Software Maintenance Activities With Explicit Task Representations**. Technical Report CMU-CS-06-150 and CMU-HCII-06-107, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA, August 2006. Master's thesis.

[P5] Amy J. Ko, Brad A. Myers, Michael J. Coblenz, and Jeff Stylos. (2005). **End-User Programming Productivity Tools**. 2nd Workshop on End-User Software Engineering.

[P4] Michael J. Coblenz, Amy J. Ko, and Brad A. Myers. **Using Objects of Measurement to Detect Spreadsheet Errors**. 2005 IEEE Symposium on Visual Languages and Human- Centric Computing (VL/HCC 2005), Dallas, TX, 20-24 September 2005.

[P3] Michael J. Coblenz. **Using Objects of Measurement to Detect Spreadsheet Errors**. Technical Report CMU-CS-05-150, School of Computer Science, Carnegie Mellon University, Pittsburgh, PA, July 2005. Bachelor's honors thesis.

[P2] Reid Simmons, Dani Goldberg, Adam Goode, Michael Montemerlo, Nicholas Roy, Brennan Sellner, Chris Urmson, Alan Schultz, Myriam Abramson, William Adams, Amin Atrash, Magda Bugajska, Michael Coblenz, Matt MacMahon, Dennis Perzanowski, Ian Horswill, Robert Zubek, David Kortenkamp, Bryn Wolfe, Tod Milam, and Bruce Maxwell. **GRACE: an autonomous robot for the AAAI Robot challenge**. June 2003, AI Magazine, Volume 24 Issue 2.

[P1] Dennis Perzanowski, Alan Schultz, William Adams, Magda Bugajska, Myriam Abramson, Matt MacMahon, Amin Atrash, and Michael Coblenz. **"Excuse me, where's the registration desk?"** Report on Integrating Systems for the Robot Challenge AAAI 2002, AAAI Technical Report FS-02-03. AAAI Press, 63-72.

Teaching Experience

Faculty Facilitator, **CMSC 388Z: Programming in Rust, University of Maryland, Fall 2021**
- Supervising (with Michael Hicks and Robert Patro) a student-taught undergraduate course on programming in Rust.

Designer and Instructor, Usability of Programming Languages, University of Maryland, Spring 2021
- Proposed, designed, and taught an undergraduate course on research on the usability of programming languages. The course included instruction and practice of research methods, seminar-style discussion of relevant research papers, and an independent project.
- All students who responded to the end-of-course survey agreed or strongly agreed that the course was intellectually challenging, that they learned a lot from the course, and that I was an effective teacher.

Teaching Assistant, Foundations of Software Engineering, Carnegie Mellon University, Fall 2016
- Sole TA for a junior-level software engineering course. Proposed and implemented significant changes to the projects and recitation content. Led recitation sections (2) with students; held office hours; occasionally taught the main lecture.

Teaching Assistant, Constructive Logic, Carnegie Mellon University, Fall 2015
- Designed and graded homework assignments; planned and led recitation sections with students; held office hours

AP Computer Science student mentor/instructor, Allderdice High School, Pittsburgh, PA, **2006-2007**
- Mentored three high school students in studying the AP Computer Science curriculum. Designed and gave lessons and homework assignments.

Figure Skating Instructor, Carnegie Mellon University, Fall 2002 - Spring 2008
- Founded a student-taught figure skating course through the Student College; taught for seven semesters as a student and four semesters after graduating. Developed curriculum; organized course logistics; recruited co-instructors to improve student-teacher ratio and scale the class up.

Invited Talks

- User-centered Programming Language Design for Obsidian, a Safer Blockchain Programming Language. *National Security Agency Science of Security Virtual Seminar.* January 2020.
- User-centered Programming Language Design for Obsidian, a Safer Blockchain Programming Language. *McGill University Computer Science Colloquium*. January 2020.

- Can Advanced Type Systems Be Usable? An Empirical Study of Ownership, Assets, and Typestate in Obsidian. *Brown University Programming Languages Colloquium*. November 2020.
- Safer Smart Contract Languages for Blockchain Applications. *Ripple University Blockchain Research Initiative (UBRI) Connect conference*. October 2020.
- Obsidian: A User-Centered Programming Language with Typestate and Assets. *Cornell University Programming Languages Seminar*. February 2020.
- Obsidian: A User-Centered Language for Safer Smart Contracts. *Guest lecture in CS279r (Elena Glassman and Nada Amin), Harvard University*. October 2019.
- Obsidian: A User-Centered Language for Safer Smart Contracts. *University of California, Berkeley*. October 2019.
- Obsidian: A Safer Smart Contract Language. *Ripple University Blockchain Research Initiative (UBRI) Connect conference*. October 2019.
- Obsidian: A Safer Smart Contract Language. CyLab Partners Conference. October 2018.
- Interdisciplinary Programming Language Design - Preview. *PLATEAU Workshop*. November 2018.
- Obsidian: A Safer Blockchain Programming Language. *George Mason University Software Engineering Seminar*. January 2018.

Tutorials

Michael Coblenz and Jonathan Aldrich. Integrating User-Centered Methods into Programming Language Design. Tutorial presented at ICFP 2020. August 27, 2020. Recording available online: https://www.youtube.com/watch?v=-m34gNVVpFQ

Invited Attendance

- NSF-funded working group: *A Platform for Conducting Software Engineering User Studies*, Nov. 2021
- DARPA ISAT Study Group, Usable Security-by-Construction (UserCon), 2020
- Dagstuhl Seminar 22231: Theories of Programming
- Dagstuhl Seminar 19231: Empirical Evaluation of Secure Development Processes
- Dagstuhl Seminar 18332: Blockchain Technology for Collaborative Information Systems
- Dagstuhl Seminar 18061: Evidence About Programmers for Programming Language Design

Other Press

Eliezer Kanal and Michael Coblenz. SEI Podcast series video: Obsidian: A Safer Blockchain Programming Language. May 2018. https://podcasts.apple.com/us/podcast/obsidian-a-safer-blockchain-programming-language/id566573552?i=1000413689623

Marianne Bellotti. User Research for Programming Languages (featuring Michael Coblenz). Podcast in “Marianne Writes a Programming Language (6 Part Series).” https://dev.to/bellmar/user-research-for-programming-languages-featuring-michael-coblenz-3d5e

External Service

- ACM SIGPLAN Conference Data Committee
- Co-organizer, 2nd International Workshop on Human Aspects of Types and Reasoning Assistants (HATRA 2021), at SPLASH 2021
- External Reviewer, CHI 2022
- Program Committee, VL/HCC 2022
- Program Committee, Understanding research about software developers around the world amidst global pandemics and crises (workshop at ECSCW 2021).
- Sub-reviewer, COORDINATION 2021 (part of 16th International Federated Conference on Distributed Computing Techniques, sponsored by IFIP)
- Web chair and program committee member, VL/HCC 2021
- Sub-reviewer, IEEE S&P (Oakland) 2020
- Program Committee, ACM CCS 2021: Usability and Measurement Track
- Co-organizer, 1st International Workshop on Human Aspects of Types and Reasoning Assistants (HATRA 2020), at SPLASH 2020
- OOPSLA Artifact Evaluation Committee 2020
- Reviewer, ACM Transactions on Computing Education (TOCE 2020)
- Reviewer, ACM Conference on Designing Interactive Systems (DIS 2020)
- Program Committee VL/HCC 2020
- Reviewer, Ledger journal 2019
- Panel member, TiE Pittsburgh Blockchain Panel (https://pittsburgh.tie.org) (May 2018)
- Collector for Dagstuhl Seminar 18061: Evidence About Programmers for Programming Language Design
- Artifact Evaluation Committee, POPL 2018
- Reviewer, Empirical Software Engineering journal (2017, 2019)
- Sub-reviewer, OOPSLA 2016
- Student volunteer at POPL (January 2016) and SPLASH (October 2015)

Internal Service

- Mentor, Technica 2020 (all-women and non-binary hackathon; https://gotechnica.org) research track
- Led interview skills workshops (2014-2020, CMU; 11/20, UMD)
- Head, Research Experience for Undergraduates in Software Engineering Admissions Committee (2016-2018)
- CMU School of Computer Science Dean Search Advisory Committee (2018-2019)
- Steering Committee, Blockchain Fundamentals micro-course (2018)
- CMU Computer Science Department Faculty Search Committee (2017-2018)
- Ported and managed software system for scheduling meetings during admitted student Open House event (Spring 2016)
- Student organizer of Introductory Course for incoming CS PhD students (Fall 2015, Fall 2017)

Patents

- David G. Franklin, Michael J. Coblenz. Cell Error Tracking in Applications. U.S. Patent No. 10,354,001. Issued July 16, 2019.
- Edward Patrick Hogan, Jonathan Robert Speicher, Matthew Ross Lehrian, Michael Jeremy Coblenz, Ryan M. Olshavsky, Shawn Patrick Flisakowski. Updating formulas in response to table transposition. U.S. Patent No. 10,152,470. Issued December 11, 2018.
- Michael Coblenz, Jeffery Hunter, and Yik Shang Yip. Context Sensitive Computations. U.S. Patent No. 9,996,519. Issued June 12, 2018.
- Michael Coblenz and Shawn Flisakowski. Reference Representation and Transformation in Collaborative Documents. U.S. Patent No. 9,684,646. Issued June 20, 2017.
- Peter Berger, Yik Shing Yip, Matthew Lehrian, and Michael Coblenz. Device, method, and graphical user interface for location-based data collection. Australian Patent No. 2010340101. Granted February 20, 2014.

Advising

- Kamatchi Voozhian (UMD MS student; interviews and data analysis for REST API design)
- Piyush Chauhan (Mentee through SIGPLAN-M, collaborating on Kale spreadsheet project)
- Vaibhav Khetan (UMD Junior, fall 2021; collaborating on Kale spreadsheet project)
- April Porter (Maryland high school student; Rust usability)
- Teja Sri Venkat Nallagorla (Maryland high school student; Rust usability)
- Varun Das (Maryland high school student; Rust usability)
- Hanna Wosenu (Maryland high school student; Rust usability)
- Timothy Mou (REU student, summer 2020; evaluated Obsidian's applicability to Ethereum)
- Ian Voysey (software engineer at CMU, 2021, porting Obsidian to Ethereum)
- Yinglan Chen (CMU graduate, summer 2020; work on Obsidian for Ethereum)
- Tim Ganger (Junior, summer 2020; corpus study of Solidity programs)
- Gauri Kambhatla (REU student, summer 2019; Obsidian implementation and user studies; first author of P26; co-authored P24; won second place in 2019 SPLASH student research competition; now Ph.D. student at UT Austin)
- Reed Oei (REU student, summers 2019 and 2020; Obsidian implementation and user studies; co-authored P23; now Ph.D. student at UCLA)
- Yannick Bloem (Senior, 2018-2019; Obsidian implementation; co-authored P23. Now at Apple.)
- Bobby Zhang (Sophomore, fall 2018; Obsidian implementation)
- Gauri Agarwal (Junior, 2018-2019; Obsidian implementation)
- Paulette Koronkevich (REU student, summer 2018; Obsidian design, implementation, and case study; co-authored P23 and P24. Won second place in 2018 SPLASH student research competition for Obsidian work. Now a PhD student at UBC.)
- Miles Baker (REU student, summer 2018; Obsidian design and implementation; co-authored P23; now a software engineer at Amazon)
- Sachi Sharma (MS, spring 2019; Obsidian implementation. Now a software engineer at Amazon.)
- Suzz Glennon (Senior, spring 2018; Obsidian implementation. Now a software engineer at Intuit.)
- Jenna Wise (Ph.D. student, fall 2017; Obsidian formative studies; co-authored P24)

- Celeste Barnaby (REU student, summer 2017; Obsidian implementation and formative studies; co-authored P19 and P24. Now a Ph.D. student at UT Austin.)
- Tyler Etzel (REU student, summer 2017; Obsidian design and implementation; co-authored P19 and P23. Now at Facebook.)
- Whitney Nelson (REU student, summer 2016; Glacier user studies; co-authored P18. Now a Research Scientist at Morehouse College)

Activities

SCUBA diving (PADI Advanced Open Water certified); photography; road biking; hiking; figure skating