Amy Zhu

Curriculum Vitae

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EDUCATION

2026 Ph.D., Computer Science, University of Washington (anticipated)
Advisors: Adriana Schulz and Zachary Tatlock

2020 B.Sc., Computer Science, University of British Columbia

PUBLICATIONS

2024 "Computational Illusion Knitting." **Amy Zhu**, Yuxuan Mei, Benjamin Jones, Zachary Tatlock, Adriana Schulz. *SIGGRAPH*, 2024.

2024 "How Can Large Language Models Help Humans in Design and Manufacturing?" Liane Makatura, Michael Foshey, Bohan Wang, Felix Hähnlein, Pingchuan Ma, Bolei Deng, Megan Tjandrasuwita, Andrew Spielberg, Crystal Owens, Peter Yichen Chen, Allan Zhao, **Amy Zhu**, Wil Norton, Edward Gu, Joshua Jacob, Yifei Li, Adriana Schulz, Wojciech Matusik. *Harvard Data Science Review*, 2024.

2023 "Exploring Self-Embedded Knitting Programs with Twine." **Amy Zhu**, Adriana Schulz, Zachary Tatlock. *ICFP Workshop on Functional Art, Music, Modelling and Design (FARM)*, 2023.

2023 "Equality Saturation Theory Exploration à la Carte." Anjali Pal, Brett Saiki, Ryan Tjoa, Cynthia Richey, **Amy Zhu**, Oliver Flatt, Max Willsey, Zachary Tatlock, Chandrakana Nandi. *OOPSLA*, 2023.

2022 "Co-Optimization of Design and Fabrication Plans for Carpentry." Haisen Zhao, Max Willsey, **Amy Zhu**, Chandrakana Nandi, Zachary Tatlock, Justin Solomon, Adriana Schulz. *ACM Transactions on Graphics*, 2022.

2021 "Rewrite Rule Inference Using Equality Saturation." Chandrakana Nandi, Max Willsey, **Amy Zhu**, Yisu Remy Wang, Brett Saiki, Adam Anderson, Adriana Schulz, Dan Grossman, Zachary Tatlock. *OOPSLA*, 2021.

2020 "Concise Read-Only Specifications for Better Synthesis of Programs with Pointers." Andreea Costea, **Amy Zhu**, Nadia Polikarpova, Ilya Sergey. *ESOP*, 2020.

Under Submission

"A Scheduling DSL for Machine Knitting." **Amy Zhu**, Marlena Preigh, Mackenzie Leake, Adriana Schulz, Maaz Bin Safeer Ahmad, Zachary Tatlock. Under submission to *ASPLOS* 2027.

AWARDS AND HONORS

2021	Distinguished Paper Award, "Rewrite Rule Inference Using Equality Saturation," ACM SIGPLAN Object-Oriented Programming, Systems, Languages & Applications (OOPSLA)
2020	David Notkin Endowed Fellowship in Computer Science and Engineering, University of Washington
2018	IKB Women in Technology Scholarship, University of British Columbia
2018	NSERC USRA, University of British Columbia
2016	Science Scholar, University of British Columbia
2016	Trek Excellence Award for Continuing Students, University of British Columbia
2016	J. Fred Muir Memorial Scholarship in Science, University of British Columbia

CONFERENCE ACTIVITY

Workshops

2026	"Coinduction." Joint Mathematics Meetings, Math and Art Workshop, Washington, DC, January 7. With John Leo.

OTHER RESEARCH EXPERIENCE

2018–2019	Research Assistant, UBC Network, Systems & Security Lab, with Ivan Beschastnikh

INDUSTRY EXPERIENCE

2025	Research Intern, Adobe Research (with Alec Jacobson)
2022	Research Intern, Adobe Research (with Maaz Ahmad)
2017–2018	Software Engineering Co-op, FuseMail

TEACHING

University of Washington
Graduate Teaching Assistant: Computational Fabrication (Winter 2025)
Graduate Teaching Assistant: Special Topics in Computer Science: Computational Fabrication (Fall 2022)

University of British Columbia
Student Seminar Instructor: Computer Science Pedagogy (Winter 2020)

Undergraduate Teaching Assistant: Definition of Programming Languages (Fall 2019)
Undergraduate Academic Assistant: Computer Graphics (Fall 2019–Winter 2020)
Undergraduate Academic Assistant: Software Engineering, UBC Extended Learning (2017–2018)
Undergraduate Teaching Assistant: Computation, Programs, and Programming (Fall 2016, Winter 2017, Winter 2018)

SERVICE

External Reviewer

2025	SIGGRAPH
2025	UIST
2025	SIGGRAPH Posters
2023	OOPSLA Artifact Evaluation Committee
2018	ESEM

Volunteer

2019	ICSE Student Volunteer

LEADERSHIP

2019–2020	President, UBC Computer Science Student Society
2018–2019	Vice-President External, UBC Computer Science Student Society