Paulette Koronkevich

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Education

Current **University of British Columbia**, Vancouver, BC, Canada
Software Practices Lab
PhD in Computer Science

August 2021 **University of British Columbia**, Vancouver, BC, Canada
Software Practices Lab
MSc in Computer Science

May 2019 **Indiana University**, Bloomington, Indiana, USA
School of Informatics, Computing, and Engineering
Bachelor's of Science in Computer Science
MINORS: Mathematics, Slavic Studies

Thesis

2021 *ANF Preserves Dependent Types up to Extensional Equality*
Paulette Koronkevich
UBC Electronic Theses and Dissertations (ETDs) 2008+
DOI

Publications

2021 *PLIERS: A Process that Integrates User-Centered Methods into Programming Language Design*
Michael Coblenz, Gauri Kambhatla, **Paulette Koronkevich**, Jenna L. Wise, Celeste Barnaby, Joshua Sunshine, Jonathan Aldrich, and Brad A. Myers.
ACM Transactions on Computer-Human Interaction (TOCHI) 2021
ACM DL

2020 *Obsidian: Typestate and Assets for Safer Blockchain Programming*
Michael Coblenz, Reed Oei, Tyler Etzel, **Paulette Koronkevich**, Miles Baker, Yannick Bloem, Brad A. Myers, Joshua Sunshine, and Jonathan Aldrich.
ACM Transactions on Programming Languages and Systems (TOPLAS) 2020
ACM DL

Honors & Awards

2019-2021 UBC CS Merit Scholarship

2019　　NSF Graduate Research Fellowship
unable to receive funding at Candian institution, however.

2015-2019　　Indiana University Cox Scholarship
given to ~40 incoming IU students for high academic performance along with a part-time job, and are required to maintain this throughout their undergraduate degree.

2015-2019　　School of Informatics, Computing, and Engineering Dean's List
given for maintaining a GPA above 3.7.

2018　　Second place at Systems, Programming, Languages, and Applications: Software for Humanity (SPLASH 2018) Student Research Competition

2018　　Cornell, Maryland, and Max Planck Pre-Doctoral Research School (CMMRS) Travel Award

2017　　First place at the SICE Research & Projects Symposium
presented my compilers course project: One Weird Trick to Compile Call/cc.

2017　　Programming Languages Mentoring Workshop (PLMW) at the International Conference on Functional Programming (ICFP) Travel Award

Presentations

2021　　*The ANF Translation Preserves Dependent Types up to Extensional Equality*
Presented at: Languages, Systems, and Data (LSD) Seminar at UC Santa Cruz.

2019　　*Reigniting Fuse, an Online Partial Evaluator for Scheme*
Presented at: Scheme Workshop at the International Conference on Functional Programming (ICFP).

2018　　*Obsidian in the Rough: A Case Study Evaluation of a New Blockchain Programming Language*
Presented at: Midwest Programming Languages Summit (MWPLS); Systems, Programming, Languages, and Applications: Software for Humanity (SPLASH) Student Research Competition.

Research Experience

2019　　Undergraduate thesis with Professor Sam Tobin-Hochstadt, developing a partial evaluator for linklets in the Racket language.

Summ. 2018　　**Carnegie Mellon University**, Pittsburgh, Pennsylvania

- Conducted a case study evaluation of a blockchain programming language, Obsidian.

- Contributed to a new feature of the language as a result of this evaluation.

- Wrote and presented the work with a student research competition submission and poster.

Spring 2018 **Indiana University**, Bloomington, Indiana

- Contributed to a current research compiler, Gibbon, which optimizes traversals over tree data structures.

- Extended the current language from a first order language to a higher order language.

- Wrote a final report summarizing the work, citing the primary resources found and used.

Work Experience

Summ. 2019 **Galois Inc**, Portland, Oregon
Software Engineering/Research Intern

- Built a system which generated random tests for an API based on a high-level specfication.

- Developed a prototype of a typechecker for an advanced type system.

2016-2019 **Indiana University**, Bloomington, Indiana
IU Peer Coach

- Assisted all students with registering, scheduling, and planning classes.

- Held 8-10 appointment and drop-in hours to provide support for students one on one.

- Organized degree-planning workshops to help inform and prepare incoming students.

Summ. 2017 **JPMorgan Chase & Co**, Chicago, Illinois
Tech Analyst Intern

- Learned about various software development tools and the SDLC.

- Refactored an existing application to prepare it for cloud deployment.

- Recreated the user interface into a portable widget.

Teaching

Fall 2021	Programming Languages
Fall 2020	Programming Languages (graduate course)
Spring 2019	Introduction to Computer Science
Fall 2018	Programming Languages & Mapping Your Future
Spring 2018	Dependent Types
Fall 2017	Programming Languages
Spring 2017	Introduction to Computer Science, making instructional videos.
Fall 2016	Introduction to Computer Science
Spring 2016	Introduction to Computer Science

Service

2020-2022	President of UBC Computer Science Graduate Student Association.
2019-2021	Events director for UBC Women in Computer Science (WiCS).
2018-2020	Student Volunteer at International Conference on Functional Programming (ICFP) 2018-2019, Programming Language Design and Implementation (PLDI) 2019-2020, and Principle of Programming Languages (POPL) 2020-2021.
2019	VP Social for UBC Computer Science Graduate Student Association.
2018	Organizational Committee for Opportunities for Undergraduate Research in Computer Science (OurCS), held at Indiana University in 2018. *Also served on a student research panel.*

Skills

Racket • Agda • Haskell • Java

Foreign languages

Russian