

Darya Verzhbinsky

Education

Sept '21 **PhD Computer Science**, *University of Washington*, Seattle, Washington.

Advisor: **Ras Bodik**

Research Group: **UW PLSE**

Sept '17 – **BS Computer Science**, *UC San Diego*, La Jolla, California.

June '21 Advisor: **Nadia Polikarpova**

Research Group: **UCSD ProgSys**

Tools & Languages

Racket • Rosette • SMT/SAT Solvers • Haskell • C/C++ • Java • Python • Clojure • HTML/CSS • Latex • Vim

Research

Sept '21 – **Graduate Research Assistant**, *University of Washington - CSE Department*, Seattle, WA.

present Advisor: **Ras Bodik, Amy Ko**

Research Partner: **Stefania Druga**

- Working on Program Synthesis/HCI project for visual programming
- Building tool geared towards children programming novices
- Tool is written in Rosette

Jan '20 – **Undergraduate Researcher**, *UC San Diego - CSE Department*, La Jolla, CA.

June '21 Advisor: **Nadia Polikarpova**

- Worked with **Hoogle⁺** team
- Built type-guided top-down enumerative synthesis tool for fully polymorphic and higher-order programs in Haskell
- Submitted 3-page abstract to Student Research Competition at POPL '21 (won 1st place)

Sept '18 – **Student Researcher**, *UC San Diego - CSE Department*, La Jolla, CA.

June '19 Program: **Early Research Scholars Program**

Advisor: **Jishen Zhao**

- Targeted the exploration of various software caching mechanisms in key-value store database on SSD using C++ and Linux
- Analyzed the access patterns of various applications and aimed to identify bottlenecks of Linux's `mmap()` system call
- Presented research at the UCSD CSE Research Expo

Teaching

Sept '18 – **Undergraduate Computer Science Tutor**, *UC San Diego - CSE Department*, La Jolla, CA.

- June '21
- Tutored for:
 - Programming Languages (*WI '20, SP '20, SP '21*)
 - Intro to Computer Science - Java + Python (*FA '18, FA '19, FA '20, WI '21*)
 - Intro to Discrete Mathematics (*SP '19*)
 - Basic Data Structures and OOD - Java + C (*WI '19*)
 - Duties included:
 - managing the schedules of the tutoring staff's office hours
 - writing and grading programming assignments/exams
 - coordinating an effort to engage struggling students with course staff
 - holding office hours for students to get help on assignments

Jun '18 – **Assistant Teacher**, *Girls Who Code*, Mountain View, CA.

Aug '18 *Program: Summer Immersion Program*

- Instructed a classroom of 20 high school girls on the basics of Computer Science in: Scratch • Python • Arduino C / Robotics • Web Development • Data Science • Algorithms
- Held college admission workshops throughout the summer for students who were incoming seniors
- Facilitated the development of several full-stack projects

Industry

June '19 – **Engineering Practicum Intern**, *Google*, Sunnyvale, CA.

- Sept '19
- Worked on **KUnit** dev team, which is a unit testing tool for the Linux Kernel
 - Improved test coverage for `kunit_tool` by 20%
 - Integrated line coverage results into `kunit_tool` through Prow's presubmit tool using GCOV and LCOV
 - Implemented incremental coverage as part of line coverage reporting

Submissions / Presentations

June 2020 **PETSY: Polymorphic Enumerative Type-Guided Synthesis [pdf]** *POPL SRC '21*

June 2019 **Exploring Performance of Memory Mapping [poster]** *UCSD CSE Research Expo*

Graduate Classes

Fall 2021 **CSE 507: Computer-Aided Reasoning for Software (Emina Torlak) [website]** *UW CSE*

Awards / Scholarships

2021-2022 Faithful Steward Endowed Fellowship in CSE (1st year scholarship) *UW CSE*

2021 1st place, Student Research Competition (Undergraduate) *POPL 2021*

2019 Internship Symposium Award for Achievements in Personal & Professional Growth *UCSD*

2019 Grace Hopper Conference Scholarship Winner *Google*

2018 Full Scholarship Winner for Grace Hopper Conference *UCSD Women in Computing*

Service

Fall '21 **UW PAMS Mentor [website]** *PhD Application Mentor*

ICFP '20 Student Volunteer *Virtual Conference*

PLDI '20 Student Volunteer *Virtual Conference*

POPL '20 Student Volunteer *New Orleans, LA, USA*