

# Darya Verzhbinsky

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## Education

Sept '21 **PhD Computer Science**, *University of Washington*, Seattle, Washington.  
**Advisor:** Ras Bodik

Sept '17 – **BS Computer Science**, *UC San Diego*, La Jolla, California.  
June '21 **Advisor:** Nadia Polikarpova

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## Research

Jan '20 – **Undergraduate Researcher**, *UC San Diego - CSE Department*, La Jolla, CA.  
June '21 **Advisor:** Nadia Polikarpova

- Worked with **Hoogle<sup>+</sup>** 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

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## Teaching

Sept '18 – **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

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## 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

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## 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*

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## Awards / Scholarships

- 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*

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## Service

- ICFP '20 Student Volunteer *Virtual Conference*  
PLDI '20 Student Volunteer *Virtual Conference*  
POPL '20 Student Volunteer *New Orleans, LA, USA*

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## Tools & Languages

Haskell • C/C++ • Java • Python • Clojure • HTML/CSS • Latex • Vim • Docker