

Ziteng “Zetten” Wang

CONTACT INFORMATION	Incoming PhD student <i>The University of Texas at Austin</i>	e-mail: ziteng@utexas.edu website: https://ziteng.wang/
BRIEF	Ziteng is an incoming PhD student at UT Austin, who is interested in the area of Programming Languages where he could employ reasoning and checking techniques to help developers write readable, correct, and efficient programs.	
EDUCATION	The University of Texas at Austin, PH.D. COMPUTER SCIENCE Sep 2021 – Current University of California, San Diego, B.S. COMPUTER SCIENCE University of California, San Diego, B.S. MATHEMATICS Sep 2017 – Jun 2021	
EXPERIENCE	Research Assistant & Interns, University of California, San Diego <i>Program Synthesis, advised by Prof. Nadia Polikarpova</i> Jun 2019 – Jun 2021 <ul style="list-style-type: none">• Augmented a Haskell program synthesizer with <i>candidate filtering</i> that filters out uninteresting candidates with <i>Property-based Testing</i>.• Resulted in Third Place, POPL’20 SRC and a paper accepted to OOPSLA’20.• Filters out up to 90% of all synthesized programs with a false negative rate up to 10%.• Now working on program comprehension, i.e. generating human-readable input-output examples to describe the function behavior. (research proposal on my website) Tutor, University of California, San Diego <i>CSE 130: Programming Languages: Principles and Paradigms</i> Mar 2021 – Jun 2021 <ul style="list-style-type: none">• Helped plan and run an upper-division course on (mostly) functional programming languages.• Graded final exam submissions, answered questions on both online forum and office hours. Teaching Assistant, University of California, San Diego <i>MATH 11: Probability and Statistics; MATH 10A: Calculus</i> Sep 2020 – Mar 2021 <ul style="list-style-type: none">• Led two discussion sections to review course materials and practice questions.• Graded exam submissions, prepared exam-review notes, and helped students improve problem-solving skills during office hours.• 87.5% students recommended. Research Assistant, University of California, San Diego <i>Psychology Experiments WebApp, advised by Prof. Timothy Rickard</i> Jan 2018 – Jul 2018 <ul style="list-style-type: none">• Developed backend for an experiment application used in an interleaving psychology study.• Proposed structures of data management for experiments; planned the development timeline.• Wrote and reviewed team codes for JS with stacks <i>React/Redux/MongoDB</i> used.	
PROJECTS	mistzzt/vscode-elsa-lang <i>Syntax Highlighting in TextMate-style for Elsa, a λ-calculus evaluator</i> Jan 2018 TyGus/hoogle-plus <i>Type-driven Synthesis Engine for Haskell</i> Present mistzzt/tmodloader-mod-localizer <i>Localization Utility by .NET MSIL modification</i> Mar 2018	
HONORS AND AWARDS	Third Place, POPL 2020 Student Research Competition , New Orleans, LA 2020	
TALKS	Test-based Solution Filtering for Program Synthesis, POPL’20 SRC , New Orleans, LA 2020	

- PUBLICATIONS [1] Michael James, Zheng Guo, **Ziteng Wang**, Shivani Doshi, Hila Peleg, Ranjit Jhala, and Nadia Polikarpova. 2020. Digging for Fold: Synthesis-Aided API Discovery for Haskell. Proc. ACM Program. Lang.4, OOPSLA, Article 205 (November 2020), 27 pages. <https://doi.org/10.1145/3428273>
- [2] Zheng Guo, Michael James, David Justo, Jiaxiao Zhou, **Ziteng Wang**, Ranjit Jhala, and Nadia Polikarpova. 2020. Program Synthesis by Type-Guided Abstraction Refinement. Proc. ACM Program. Lang. 4, POPL, Article 12 (January 2020), 28 pages. <https://doi.org/10.1145/3371080>
- [3] **Ziteng Wang**. 2020. Test-based Solution Filtering for Program Synthesis. Proc. ACM Program. Lang. 4, POPL, Student Research Competition, 3 pages.