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Zhe Zhou

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EDUCATION

PhD of Computer Science <i>Purdue University, Advised by Prof. Suresh Jagannathan</i> Main courses: Programming Languages, Reasoning about Programs, Compiling and Programming Systems Operating Systems, Pattern Recognition and Decision-Making Processes (GPA: 4.0)	2018.8 – present
Bachelor of Computer Science <i>Peking University, Advised by Prof. Guangyu Sun</i>	2013.9 – 2017.7

WORK EXPERIENCE

Full Time C++ Software Engineer <i>Megvii</i>	2017.7 – 2018.7 <i>Beijing, China</i>
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RESEARCH INTEREST

Formal verification, automated verification, type system, property-based testing, specification inference, program synthesis

SKILLS&LANGUAGES

Mostly used:	Ocaml, Coq, Z3
Familiar with:	SML, C, C++, Java, Python, Scala, Haskell, Dafny

PUBLICATION

Data-Driven Abductive Inference of Library Specifications <i>Zhe Zhou, Robert Dickerson, Benjamin Delaware, and Suresh Jagannathan</i> (Distinguished Artifact)	OOPSLA'21
Covering All the Bases: Type-based Verification of Test Input Generators <i>Zhe Zhou, Ashish Mishra, Benjamin Delaware, and Suresh Jagannathan</i> (Distinguished Paper)	PLDI'23

SERVICE

External Review Committee Member	OOPSLA'23
Artifact Evaluation Committee Member	PLDI'23

PROJECT

Data-driven Specifications Inference <i>Design a data-driven inference procedure which is guided by counterexamples to infer specifications of multiple the blackbox library APIs that are consistent with the given whitebox client code.</i>	OOPSLA'21
Underapproximate Refinement Type System <i>Design a refinement type system that verifies the coverage property of the random test generator.</i>	PLDI'23, In progress
Machine learning for Program Synthesis <i>Use the machine learning approaches (e.g., MCMC-based approach, transformer neural network) to learn expected programs.</i>	In progress