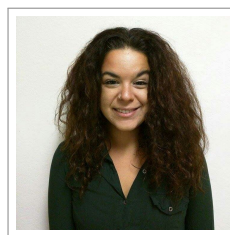


Niki Vazou

Postdoctoral Fellow
CS at University of Maryland
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Born: 20 July 1987, Greece



"Simplicity is the ultimate sophistication." – Da Vinci

My goal is to design *usable program verifiers* that can be integrated in standard software development.

Research Interests

Static Program Verification, Type Systems, Type Inference, Abstract Interpretation, Functional Programming, Haskell, Dependent, Refinement and Liquid Typing.

Education

2017-present **Postdoctoral Fellow in Programming Languages Group**

Department of Computer Science
University of Maryland

2011-2016 **Ph.D. in Programming Systems Group** (GPA: 3.962 / 4)

Department of Computer Science & Engineering
University of California, San Diego

Thesis: “Liquid Haskell: Haskell as a Theorem Prover” supervised by Ranjit Jhala.

2005-2010 **Diploma in Computer Software & Computer Systems** (GPA: 9.24 / 10)

Department of Electrical & Computer Engineering
National Technical University of Athens

Thesis: “Type Systems with Linear Capabilities” supervised by Nikolaos Papaspyrou.

Awards

2015 UCSD CSE Graduate Award for Research.

2014 Microsoft Research Graduate Research Fellowship.

2013, 2012 POPL-PLMW Travel Scholarship.

Work Experience

Summer 2016 Awake Networks, Mountain View, USA.

I used LiquidHaskell to verify correctness on Awake’s production code base.

Summer 2014 Microsoft Research, Redmond, USA.

I worked with Daan Leijen on extended Koka with user-defined effects.

Fall 2013 Microsoft Research, Cambridge, UK.

I worked with Dimitrios Vytiniotis on proving soundness of LiquidHaskell.

Summer 2012 Opa, Paris, French.

I refined error reporting on Opalang, a functional language for cloud programming.

Teaching Experience

- 2013-now TA at Grad Programming Languages (CSE230 Fa16, Wi16, Wi14, and Wi13), UCSD.
- 2015 Instructor at "Haskell: Programming with Functions", Workshop at Clubes De Ciencia, Summer 2015, Guanajuato, Mexico.
- 2014 TA at Automata and Computability Theory (CSE105 Fa14), UCSD.
- 2014 Mentor TA at Teaching Methods in CS (CSE599 Fa14), UCSD.
- 2010 TA at Computer Programming, Fa10, NTUA.

Mentoring

- 2015-2016 Michael Smith – Native Type Encoding for LiquidHaskell.
- 2015-2016 Kyly Vass – Improving Parser in LiquidHaskell.

Publications

- N. Vazou**, and D. Leijen. From Monads to Effects and Back. PADL 2016.
- N. Vazou**, A. Bakst, and R. Jhala. Bounded Refinement Types. ICFP, 2015.
- E. Seidel, **N. Vazou**, and R. Jhala. Type Targeted Testing. ESOP, 2015.
- N. Vazou**, E. Seidel, R. Jhala, D. Vytiniotis, and S. Peyton-Jones. Refinement Types for Haskell. ICFP, 2014.
- N. Vazou**, E. Seidel, and R. Jhala. LiquidHaskell: Experience with Refinement Types in the Real World. Haskell, 2014.
- N. Vazou**, P. Rondon, and R. Jhala. Abstract Refinement Types. ESOP, 2013.
- N. Vazou**, M. Papakyriakou, and N. Papaspyrou. Memory Safety and Race Freedom in Concurrent Programming with Linear Capabilities. FedCSIS, 2011.

Selected Talks

- LiquidHaskell Tutorial. CUFP. Vancouver, 2015 and Nara, 2016.
- LiquidHaskell Tutorial. Invited Talk at Facebook. Menlo Park, 2016.
- Overview of LiquidHaskell. Dagstuhl Seminar 16112 and 16131. Dagstuhl, 2016.
- LiquidHaskell Tutorial. Compose Conference. New York, 2016.
- Bounded Refinement Types. SOCAL. Claremont, 2015.
- Demo: Liquid Types for Haskell. Haskell Symposium. Boston, 2013.
- Tutorial: Type-Based Analysis of Higher-Order Programs. HOPA. New Orleans, 2013.

Service

- Committee Member at ESOP18, ML17, HOPE17, SCALA17, PADL17, SCALA16, Haskell16, HaL16, HiW16, TFP16, PADL16, PLDI16-AEC, and POPL16-AEC.
- Reviewer at Journal of Functional Programming and Mathematical Reviews.

Organizations

- 2016-present Member of Haskell.org Committee.
- 2015-2016 Event Coordinator at Graduate Women in Computing, UCSD.
- 2014-now Prime Member at Hellenic Student Association, UCSD.

References

Ranjit Jhala

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University of California, San Diego
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Daan Leijen

Research In Software Engineering
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Updated

May 2017