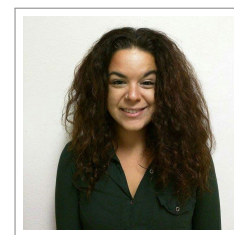


Niki Vazou

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"Simplicity is the ultimate sophistication." – Da Vinci

Education

- 2018-present **Research Assistant Professor**
IMDEA Software Institute, Madrid, Spain.
- 2017-2018 **Postdoctoral Fellow in Programming Languages Group**
Victor Basili Postdoctoral Fellow.
Dept. of Computer Science, University of Maryland, College Park.
- 2011-2016 **Ph.D. in Programming Systems Group**
Dept. 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**
Dept. of Electrical & Computer Engineering, National Technical University of Athens.
Thesis: “Type Systems with Linear Capabilities” supervised by Nikolaos Papaspyrou.

Awards

- 2016 UMD Victor Basili Postdoctoral Fellowship.
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.
Used LiquidHaskell to verify correctness on Awake’s production code base. [Haskell’17]
- Summer 2014 Microsoft Research, Redmond, USA.
Worked with Daan Leijen on extending Koka with user-defined effects. [PADL’16]
- Fall 2013 Microsoft Research, Cambridge, UK.
Worked with Dimitrios Vytiniotis on proving soundness of LiquidHaskell. [ICFP’14]
- Summer 2012 Opa, Paris, French.
Refined error reporting on Opalang, a functional language for cloud programming.

Teaching Experience

- 2018 Instructor: Organization of Programming Languages CMSC330 Sp18, UMD.
2017 Instructor: Advanced Functional Programming Languages CMSC498V Fa17, UMD.

- Summer 2015 Instructor: "Haskell: Programming with Functions", Workshop at Clubes De Ciencia, Guanajuato, Mexico.
- 2013-2016 TA: Grad Programming Languages (CSE230 Fa16, Wi16, Wi14, and Wi13), UCSD.
- 2014 TA: Automata and Computability Theory (CSE105 Fa14), UCSD.
- 2014 Mentor TA: Teaching Methods in CS (CSE599 Fa14), UCSD.
- 2010 TA: Computer Programming, Fa10, NTUA.

Mentoring

- 2019-present Panagiotis Bougoulias – Interactive Proof Generation with Liquid Haskell
- 2017-present James Parker – Liquid Haskell for Security Verification, with Michael Hicks. [POPL 2019]
- 2017-2018 Milod Kazerounian – Refinement Types for Ruby, with Jeff Foster. [VMCAI 2018]
- 2017-2018 Will Kunkel – Comparing Liquid Haskell with Coq. [POPL SRC 2018]
- Summer '17 Sean Leffler – Summer of Haskell 2017 Project on Liquid Haskell, with Eric Seidel.
- 2015-2016 Michael Smith – Native Type Encoding for Liquid Haskell, with Ranjit Jhala.
- 2015-2016 Kyly Vass – Improving Parser in Liquid Haskell, with Ranjit Jhala.

Publications

- 2019 *LWeb: Information Flow Security for Multi-Tier Web Applications*. James Parker, **Niki Vazou**, and Michael Hicks. In Proceedings of the 46th ACM SIGPLAN Symposium on Principles of Programming Languages, Portugal.
- 2018 *Refinement Reflection: Complete Verification with SMT*. **Niki Vazou**, Anish Tondwalakar, Vikraman Choudhury, Ryan Scott, Ryan Newton, Philip Wadler and Ranjit Jhala. In Proceedings of the 45th ACM SIGPLAN Symposium on Principles of Programming Languages, Los Angeles.
- 2018 *Gradual Liquid Type Inference*. **Niki Vazou**, Éric Tanter, and David Van Horn. In Proceedings of the ACM on Programming Languages OOPSLA, Boston.
- 2018 *Refinement Types for Ruby*. Milod Kazerounian, **Niki Vazou**, Austin Bourgerie, Jeffrey S. Foster, Emina Torlak. In Proceedings of the 19th International Conference on Verification, Model Checking, and Abstract Interpretation, Los Angeles.
- 2018 *Theorem Proving for All*. **Niki Vazou**, Joachim Breitner, Rose Kunkel, David Van Horn, and Graham Hutton. In Proceedings of the 11th ACM SIGPLAN International Haskell Symposium, St. Louis.
- 2017 *A Tale of Two Provers*. **Niki Vazou**, Leonidas Lampropoulos and Jeff Polakow. In Proceedings of the 10th ACM SIGPLAN International Haskell Symposium, Oxford.
- 2016 *From Monads to Effects and Back*. **Niki Vazou** and Daan Leijen. In Proceedings of the 18th International Symposium on Practical Aspects of Declarative Languages, Florida.
- 2015 *Bounded Refinement Types*. **Niki Vazou**, Alexander Bakst and Ranjit Jhala. In Proceedings of the 20th ACM SIGPLAN International Conference on Functional Programming, Vancouver. *16 citations*.
- 2015 *Type Targeted Testing*. Eric L. Seidel, **Niki Vazou** and Ranjit Jhala. In Proceedings of the European Joint Conferences on Theory & Practice of Software, London. *20 citations*.

- 2014 *Refinement Types for Haskell*. **Niki Vazou**, Eric L. Seidel, Ranjit Jhala, Dimitrios Vytiniotis and Simon Peyton-Jones. In Proceedings of the 19th ACM SIGPLAN International Conference on Functional Programming, Gothenburg. *76 citations*.
- 2014 *LiquidHaskell: Experience with Refinement Types in the Real World*. **Niki Vazou**, Eric L. Seidel and Ranjit Jhala. In Proceedings of the ACM SIGPLAN Haskell Symposium, Gothenburg. *31 citations*.
- 2013 *Abstract Refinement Types*. **Niki Vazou**, Patric M. Rondon and Ranjit Jhala. In Proceedings of the 22nd European Symposium on Programming, Rome. *62 citations*.
- 2011 *Memory Safety and Race Freedom in Concurrent Programming with Linear Capabilities*. **Niki Vazou**, Michalis Papakyriakou and Nikolaos Papaspyrou. In Proceedings of the Federated Conference on Computer Science and Information Systems, Poland.

Selected Talks

- 2018 Keynote, Haskell eXchange, London.
- 2018 Keynote, ZuriHac, Switzerland.
- 2018 Seminar 18172, Algebraic Effect Handlers go Mainstream, Dagstuhl.
- 2018 Invited talk, New Jersey Programming Languages and Systems, Princeton.
- 2017 Paper Presentation, European Symposium on Programming, Rome.
- 2017 Keynote, Type-Level Scala, New York.
- 2017 Paper Presentation, Haskell Symposium, Oxford.
- 2017 Invited lecturer, Semantics of Effects, Resources, and Applications, Shonan.
- 2017 Invited tutorial, Programming Language Design and Implementation, Spain.
- 2017 Invited talk, Lambda Days, Poland.
- 2017 Invited talk, University of Pennsylvania.
- 2017 Invited talk, Massachusetts Institute of Technology.
- 2017 Podcast Guest, Functional Geekery Episode 84.
- 2016 Seminar 16112, From Theory to Practice of Algebraic Effects and Handlers, Dagstuhl.
- 2016 Seminar 16131, Language Based Verification Tools for Functional Programs, Dagstuhl.
- 2016 Paper Presentation, Practical Aspects of Declarative Languages, Florida.
- 2016 Invited talk, University of Hawaii.
- 2016 Invited talk, University of Maryland.
- 2016 Invited talk, Facebook, California.
- 2016 Invited talk, University of Athens.
- 2016 Invited tutorial, Commercial Users of Functional Programming, Japan.
- 2015-2017 Programming Languages and Systems of Southern California, 2015, 2016, 2017.
 - 2015 Paper Presentation, International Conference on Functional Programming, Vancouver.
 - 2015 Invited tutorial, Commercial Users of Functional Programming, Canada.
 - 2014 Paper Presentation, International Conference on Functional Programming, Sweden.
- 2013-2016 Invited speaker, Programming Languages Seminar, Athens, 2013, 2014, 2016.
 - 2013 Tutorial at Higher Order Program Analysis, New Orleans.
 - 2013 Demo at Haskell Symposium. Boston.
 - 2013 Paper Presentation, European Symposium on Programming, Rome.

Service

- 2019 Chair of Haskell Implementor's Workshop, ICFP, Germany.
- 2019 Chair of Student Research Competition, POPL, Portugal.
- 2018 Co-organizer of Programming Languages Mentoring Workshop, ICFP, Missouri.
- 2018 Co-chair of Workshop on Type-Driven Development, Missouri.
- 2017 Panelist at the National Science Foundation.
- 2017 Reviewer for the Swiss National Science Foundation in Mathematics, Natural and Engineering Sciences.
- 2016-2017 Reviewer for Mathematical Reviews.
- 2016 Reviewer for the Journal of Functional Programming.

Program committee membership

- 2019 Principles of Programming Languages, Portugal.
- 2018 International Conference on Functional Programming, Missouri.
- 2018 European Symposium on Programming, Greece.
- 2018 Haskell Symposium, Missouri.
- 2017 ML-Family Workshop, Oxford.
- 2017 Workshop on Higher-Order Programming with Effects, Oxford.
- 2017 Symposium on Practical Aspects of Declarative Languages, Paris.
- 2017 Haskell in Leipzig, Germany.
- 2017 Scala Symposium, Vancouver.
- 2016 Haskell Symposium, Japan, 2016.
- 2016 Workshop on Coalgebra, Horn Clause Logic Programming and Types, Edinburgh.
- 2016 Haskell Implementors Workshop, Japan.
- 2016 Symposium on Trends in Functional Programming, Maryland.
- 2016 Artifact Evaluation for POPL, Florida.
- 2016 Artifact Evaluation for PLDI, California.
- 2016 Symposium on Practical Aspects of Declarative Languages, Florida.
- 2016 Haskell in Leipzig, Germany.
- 2016 Scala Symposium, Amsterdam.

Organizations

- 2017-present Member of The ACM SIGPLAN Haskell Symposium Steering Committee.
- 2016-present Member of Haskell.org Committee.
- Summer 2017 Co-organizer of Summer of Haskell.
- 2015-2016 Event Coordinator at Graduate Women in Computing, UCSD.
- 2014-now Prime Member at Hellenic Student Association, UCSD.

Last updated: April 2019