

# Werner M. Dietl

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## Student Supervision

### Projects at the University of Waterloo

- [UWat1] Baorui Zhou. Pluggable Type Systems. Winter 2018 URI student (ongoing), January 2018.
- [UWat2] Sadaf Tajik. Pluggable Type Systems. MASc student (ongoing), September 2017.
- [UWat3] Daniel Gerald Caccamo. Type Systems for Low-Level Languages. MASc student (ongoing), September 2016.
- [UWat4] Charles Zhuo Chen. Pluggable Type Systems. MASc student (ongoing), January 2016.
- [UWat5] Mier Ta. Pluggable Type Systems. MASc student (ongoing), January 2016.
- [UWat6] Jeff Luo. Pluggable Type Systems. PhD student (ongoing), July 2014.
- [UWat7] Haaris Ahmed. Checker Framework IDE Integration. Fall 2017 URA student (started September 2017), December 2017.
- [UWat8] Boying (Ashley) Liu. Checker Framework Live Demo Improvements. Spring 2017 URA student (started May 2017), August 2017.
- [UWat9] Vic Hao-Chien Lin. Benchmark infrastructure and Web Interface. Spring 2017 USRA student (started May 2017), August 2017.
- [UWat10] Shinya Yoshida. Control Flow Graph Enhancements. Spring 2017 GSoC student (started April 2017). Google Summer of Code (GSoC) is a competitive intern funding program from Google. Dr. Dietl is one of the GSoC organizers for the Checker Framework project and was the GSoC advisor for Mr. Yoshida, August 2017.
- [UWat11] Jason Jianchu Li. A General Pluggable Type Inference Framework and its use for Data-flow Analysis. MASc student (started May 2015), April 2017.
- [UWat12] Andy Chang Ho Lee. Investigate a new Pluggable Type System. Fall 2016 URA student (started September 2016), December 2016.
- [UWat13] Fernando Peña. Checker Framework Rise4Fun Integration. Fall 2016 URA student (started September 2016), December 2016.
- [UWat14] Luqman Aden. Checker Framework Inference Improvements. Fall 2016 USRA student (started September 2016), December 2016.
- [UWat15] Matthew D'Souza. Checker Framework Java 9 Update. Fall 2016 URA student (started September 2016), December 2016.
- [UWat16] Steven Jia. Checker Framework IntelliJ Integration. Fall 2016 URA student (started September 2016), December 2016.
- [UWat17] Thomas Feng. Checker Framework Performance Improvements. Fall 2016 student volunteer (started September 2016), December 2016.
- [UWat18] Tony Rong Tan Wang. Checker Framework NetBeans Integration. Fall 2016 URA student (started September 2016), December 2016.
- [UWat19] Yameng Li. Pluggable Type Systems. MEng student volunteer (started May 2016), June 2016.
- [UWat20] Shruti Dembla. Checker Framework Performance Profiling. Winter 2016 URA student (started January 2016), May 2016.

[UWat21] Dan Brotherston. Gradual Pluggable Typing in Java. MMath student (started May 2014); co-supervised with Ondřej Lhoták, April 2016.

[UWat22] Nahid Juma. Complexity Analysis of Tunable Static Inference For Generic Universe Types. MASc student (started July 2014); co-supervised with Mahesh V. Tripunitara, August 2015.

### **PhD Defense Committee Member**

1. Pansy Arafa, May 2017, ECE, University of Waterloo
2. Karim Ali, September 2014, CS, University of Waterloo

### **PhD Comprehensive Exam Committee Member**

1. Parsa Pourali, April 2017, ECE, University of Waterloo
2. Pansy Arafa, June 2015, ECE, University of Waterloo
3. Jean-Christophe Petkovich, July 2014, ECE, University of Waterloo
4. Jonathan Rodriguez, July 2014, CS, University of Waterloo
5. Jonathan Eyolfson, May 2014, ECE, University of Waterloo

### **PhD Thesis Reader**

1. Paley Li, March 2015, Victoria University of Wellington

### **Master Thesis Reader**

1. Ming-Ho Yee, September 2016, MMath, CS, University of Waterloo
2. Michael Chong, July 2016, MASc, ECE, University of Waterloo
3. Taiyue Liu, July 2016, MASc, ECE, University of Waterloo
4. Omar Alghamdi, November 2015, MASc, ECE, University of Waterloo
5. Aymen Ketata, September 2015, MASc, ECE, University of Waterloo
6. Neeraj Kumar, July 2015, MMath, CS, University of Waterloo
7. Zhuoran Yin, April 2015, MASc, ECE, University of Waterloo
8. Matthew Ma, July 2014, MASc, ECE, University of Waterloo
9. Marianna Rapoport, July 2014, MMath, CS, University of Waterloo

### **Fourth Year Design Project Supervision at the University of Waterloo**

1. “Seat Spotter (app that finds free spots in the library)”, Spring 2015, Winter 2016
2. “Real Time Instant Messaging System”, Spring 2014, Winter 2015

## Projects at the University of Washington

- [UWash1] Konstantin Weitz. String format type system. PhD student (started February 2013), October 2013.
- [UWash2] Eric Reed. Units-of-measurement type system. PhD student (started September 2012), October 2013.
- [UWash3] Stuart A. Pernsteiner. Qualifier polymorphic type systems. PhD student (started September 2012), October 2013.
- [UWash4] Philip Lai. SPARTA: case studies and extensions. Undergraduate research (started June 2012), October 2013.
- [UWash5] Tyler Rigsby. Verification games: extended type systems; game generation. Undergraduate research (started March 2012), October 2013.
- [UWash6] Nathaniel Mote. Verification games: graph description and layout; game generation. Undergraduate research (started January 2011), October 2013.
- [UWash7] Brian Walker. Verification games: website integration. Undergraduate research (started January 2012), January 2013.
- [UWash8] Stefan Heule. Improved dataflow analysis for the Checker Framework. Undergraduate and Master's research (started September 2011), July 2013.
- [UWash9] Dimitrios C. Gklezacos, Stefan Heule, and Brandon Holt. Evaluating Practical Non-Null Type Systems for Java. CSE 503 course project, December 2011.
- [UWash10] Mark Davis. Fake enumerations and nullness type checker case study on the OpenJDK javac. Undergraduate research (started July 2011), July 2012.
- [UWash11] Eric Spishak. Fake enumerations and regular expression type checker case studies and extensions; verification games: annotation and cast handling. Undergraduate and Master's research (started April 2011), April 2013.
- [UWash12] Stephanie Dietzel. Interning type checker case studies; verification games: KeyFor integration; testing framework. Undergraduate and Master's research (started July 2011), April 2013.
- [UWash13] Andreas Abel, Kivanc Muslu, and Brandon Myers. Dataflow support for the Checker Framework. CSE 501 course project, December 2010.

## Master's projects at ETH Zurich

Master's projects are six month full-time projects.

- [EM1] Manfred Stock. Implementing a Universe Type Checker in Scala. Master's thesis, January 2008.
- [EM2] Mathias Ottiger. Runtime Support for Generics and Transfer in Universe Types. Master's thesis, co-supervised with A. Rudich, August 2007.
- [EM3] Robin Züger. Generic Universe Types in JML. Master's thesis, July 2007.
- [EM4] Andreas Fürer. Combining Runtime and Static Universe Type Inference. Master's thesis, March 2007.
- [EM5] Martin Klebermaß. An Isabelle Formalization of the Universe Type System. Master's thesis, co-supervised with Prof. T. Nipkow, T. U. München, April 2007.
- [EM6] Daniel Schreggenberger. Universe Type System for Scala. Master's thesis, June 2007.

- [EM7] Matthias Niklaus. Static Universe Type Inference using a SAT-Solver. Master's thesis, June 2006.
- [EM8] Marco Bär. Practical Runtime Universe Type Inference. Master's thesis, May 2006.
- [EM9] Stefan Nägeli. Ownership in Design Patterns. Master's thesis, March 2006.
- [EM10] Nathalie Kellenberger. Static Universe Type Inference. Master's thesis, October 2005.
- [EM11] Frank Lyner. Runtime Universe Type Inference. Master's thesis, July 2005.
- [EM12] Thomas Hächler. Applying the Universe Type System to an Industrial Application. Master's thesis, March 2005.

### **Semester projects at ETH Zurich**

Semester projects have a workload of around 160 hours.

- [ES1] Phokham Nonava. A Universe Type Checker using JSR308. Semester project, September 2008.
- [ES2] Timur Erdag. Visualizer for Universe Type Inference Information. Semester project, September 2007.
- [ES3] Dominique Schneider. Testing Tool for Compilers. Semester project, March 2007.
- [ES4] Annetta Schaad. Universe Type System for Eiffel. Semester project, October 2006.
- [ES5] Ovidio Mallo. MultiJava, JML, and Generics. Semester project, October 2006.
- [ES6] Paolo Bazzi. Integration of Universe Type System Tools into Eclipse. Semester project, October 2006.
- [ES7] David Graf. Implementing Purity and Side Effect Analysis for Java Programs. Semester project, March 2006.
- [ES8] Marco Meyer. Interaction with Ownership Graphs. Semester project, March 2006.
- [ES9] Dirk Wellenzohn. Implementation of a Universe type checker in ESC/Java2. Semester project, October 2005.
- [ES10] Alex Suzuki. Bytecode support for the Universe type system and compiler. Semester project, March 2005.
- [ES11] Thomas Hächler. Static Fields in the Universe Type System. Semester project, July 2004.
- [ES12] Daniel Schreggenberger. Dynamic Typechecking in the Universe Type System. Semester project, October 2004.
- [ES13] Yann Müller. Testcases for the Universe type system compiler. Project assistant, September 2004.