

Fabio Niephaus

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Education

- Oct 2017 – present **Ph.D. Student**, *Software Architecture Group, Hasso Plattner Institute*, Potsdam, Germany.
Advisor: Prof. Dr. Robert Hirschfeld
- Oct 2014 – Aug 2017 **M.Sc. (Dist) in IT-Systems Engineering**, *Hasso Plattner Institute*, Potsdam, Germany.
Relevant coursework: Virtual Machine and Execution Environments, Live Programming Systems, Module systems, Web-based Development Environments, Global Team-Based Product Innovation & Engineering (ME310).
- Oct 2011 – Jul 2014 **B.Sc. (Dist) in IT-Systems Engineering**, *Hasso Plattner Institute*, Potsdam, Germany.
Relevant coursework: Software Architecture, Software Engineering, Operating Systems, Database Systems, Internet and WWW Technologies, Advanced Techniques in Practical System and Networking Security, Designing Interactive Systems (HCI).
- Aug 2001 – Aug 2010 **German Abitur**, *Grafschafter Gymnasium*, Moers, Germany.

Experience

- Apr 2007 – present **Freelance Software Engineer and Consultant**, Potsdam, Germany.
Notable clients: Maton Guitars, Modeagentur Bucksch GmbH & Co. KG.
- Jun 2017 – Sep 2017 **Software Engineering Intern**, *Google*, Mountain View, CA, USA.
Designed and implemented a live feedback mechanism for the IPython-based Colaboratory data analysis tool and improved its interactive debugger, both to increase the productivity of hundreds of search engineers and thousands of other users. Facilitated Design Thinking training sessions.
- Apr 2014 – Jun 2017 **Teaching Assistant**, *Software Architecture Group, HPI*, Potsdam, Germany.
Supervised student projects for the Software Architecture and Software Engineering lectures.
- Aug 2015 – Mar 2016 **Site Reliability Engineering Intern**, *Google*, Dublin, Ireland.
Designed and built an internal customer dashboard for Google's offline storage system and worked on its monitoring and backend components. Facilitated Design Thinking training sessions.
- Aug 2012 – Mar 2014 **Public Relations Assistant**, *Hasso Plattner Institute*, Potsdam, Germany.
Managed website and social media channels.
- Nov 2010 – Jul 2011 **Full Time Intern**, *Maton Guitars*, Melbourne, Australia.

Publications

- Aug 2017 **Squeak Makes a Good Python Debugger.**
F. Niephaus, T. Felgentreff, T. Pape, R. Hirschfeld.
In Proceedings of the Programming Experience 2017 (PX/17) Workshop, 2017.
- Aug 2016 **smalltalkCI: A Continuous Integration Framework for Smalltalk Projects.**
F. Niephaus, D. Henrichs, M. Taeumel, T. Pape, T. Felgentreff, R. Hirschfeld.
In Proceedings of the International Workshop on Smalltalk Technologies, 2016.
- Mar 2016 **Matriona: class nesting with parameterization in Squeak/Smalltalk.**
M. Springer, F. Niephaus, H. Masuhara, R. Hirschfeld.
In Proceedings of the 15th International Conference on Modularity, 2016.
- Jul 2015 **Call-target-specific Method Arguments.**
F. Niephaus, M. Springer, T. Felgentreff, T. Pape, R. Hirschfeld.
In Proceedings of the 10th Implementation, Compilation, Optimization of Object-Oriented Languages, Programs and Systems Workshop (ICOOOLPS), 2015.

Feb 2015 **ecoControl**, *Design and implementation of a prototype for optimizing heterogeneous energy systems in multi-family residential buildings.*
Herbst, Maschler, Niephaus, Reimann, Steier, Felgentreff, Lincke, Taeumel, Hirschfeld, Witt.

Notable Projects

Jan 2017 – Jun 2017 **Squimera: A live, Smalltalk-based IDE for dynamic programming languages.**
Composed RPython-based implementations of Python, Ruby, and Squeak/Smalltalk and reused the tools of a Smalltalk programming environment in such a way that they provide a consistent programming experiences across the different languages.

Apr 2016 – Aug 2016 **Master's Project on Virtual Execution Environments.**
Worked on a Smalltalk virtual machine written in RPython. Integrated SQLite, so that programming language and query language are executed by the same VM using the same JIT compiler.

Oct 2014 – Jul 2015 **ME310 Global Team-based Product Innovation & Engineering.**
Worked on a design challenge in corporation with Stanford University and University of St. Gallen. Developed a prototype to improve the collaboration between engineers at ThyssenKrupp, using Design Thinking methodologies.

Scholarships & Awards

Oct 2017 – present **Scholar of the HPI Research School.**

Oct 2011 – present **e-fellows.net Scholar.**

Dec 2011 – Jun 2017 **Scholar of the German National Academic Foundation.**

Apr 2017 **ACM Student Research Competition Winner**, *«Programming» 2017*, Brussels, Belgium.

Oct 2014 **Google Award**, *Best Integration of Android Wear*, HackZurich 2014, Zürich, Switzerland.

Extracurricular Activities

Oct 2017 – present **Publications Co-Chair**, *Organizing Committee*, SPLASH 2018.

Apr 2014 – present **Assistant Basketball Coach**, *College Sports*, University of Potsdam.

Jun 2012 – Jun 2013 **Scholarship Student Representative**, German National Academic Foundation.

Mar 2009 – Aug 2010 **School Council President**, Graftschafter Gymnasium Moers.

Aug 2008 **Deutsche SchülerAkademie**, Bildung & Begabung gGmbH.

Other

Languages German (native), English (fluent), French (basic).

Interests Music, electric and acoustic guitars, basketball, sports, movies, traveling, embedded systems (e.g. Raspberry Pi).

Memberships ACM, Squeak e.V., CdE e.V.