Dominik**Moritz**

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My goal is to use a combination of **large-scale systems for data analysis and interactive visualizations** to support novel insights and fast exploration of multi-dimensional data. I hope to build visualization systems that use statistical analysis, both for driving visualization recommendation and guiding the user's exploration as well as for supporting richer exploratory analysis.

Education

since 2013 **University of Washington** – *Ph.D. in Computer Science & Engineering* Seattle
Advised by **Bill Howe** and **Jeffrey Heer**.
Member of the Database Group and the Interactive Data Lab. Research focus on distributed database systems and interactive data visualization.
M.Sc. in Computer Science & Engineering in June 2015

2010-2013 **Hasso Plattner Institute** – *B.Sc. in IT-Systems Engineering* Potsdam
Bachelor's thesis: Algorithms for the Visualization of Software System Evolution.
GPA: 4.0 (1.0 in German system), highest distinction, rank 1/74
Advanced classes on database implementation, computational geometry, architecture, and logic.

Peer-reviewed Publications

Voyager: Exploratory Analysis via Faceted Browsing of Visualization Recommendations
Kanit Wongsuphasawat, **Dominik Moritz**, Anushka Anand, Jock Mackinlay, Bill Howe, and Jeffrey Heer. *IEEE Vis, Chicago, 2015*

Perfopticon: Visual Query Analysis for Distributed Databases
Dominik Moritz, Daniel Halperin, Bill Howe, Jeffrey Heer. *Computer Graphics Forum (EuroVis), Cagliari, Italy, 2015*

Demonstration of the Myria big data management service
Daniel Halperin, Victor Teixeira de Almeida, Lee Lee Choo, Shumo Chu, Paraschos Koutris, **Dominik Moritz**, Jennifer Ortiz, Vaspol Ruamviboonsuk, Jingjing Wang, Andrew Whitaker, Shengliang Xu, Magdalena Balazinska, Bill Howe, Dan Suciu. *SIGMOD, Snowbird, 2014*

Visualization of Varying Hierarchies by Stable Layout of Voronoi Treemaps
Sebastian Hahn, Jonas Trümper, **Dominik Moritz**, Jürgen Döllner. *IVAPP Lisbon, Portugal 2014*

Notable Awards

2013-2014 **Fulbright Fellowship** Bureau of Educational and Cultural Affairs, USA
Highly competitive, merit-based grant for international educational exchange for students, scholars, teachers and scientists.

2010-2015 **Studienstiftung des Deustschen Volkes** Studienstiftung, Bonn
The German National Academic Foundation grants prestigious scholarships to students with outstanding academic achievements. Merit-based grant for B.Sc. and M.Sc.

2010-2015 **Hasso Plattner scholarship** Hasso Plattner Institute, Potsdam
One-year scholarship awarded to the best graduates of each year.

Professional and Research Experience

Summer 2015 **Google Research** – *Research Intern* Mountain View
Intern in the Structured Data Team with Sudip Roy, Alon Halevy, Alkis Polyzotis, Natasha Noy, Xiao Yu, Steven Whang, and Chris Olston. [UX, algorithm design, JavaScript, C++]

Summer 2014 **Google** – *Software Engineering Intern* New York City
Developed new algorithms to support more complex queries in large scale production monitoring system. [Algorithm design, large scale software development, profiling, C++]

2012-2013 **Open Knowledge Foundation** – *Intern and Developer* London and Berlin
Two-month summer internship and subsequent one-year involvement in development and training for CKAN, the most deployed open data portal in the world.
[Distributed teams, agile development, large legacy systems, Python, JavaScript]

2012-2013 **Hasso Plattner Institute** – *Bachelor's Project* Potsdam
In a team of four students developed a tool to visualize software evolution with 3D Voronoi Treemaps. I focused on the theory and implementation of layout algorithms.
[Legacy code, visualization, complex algorithms, C++]

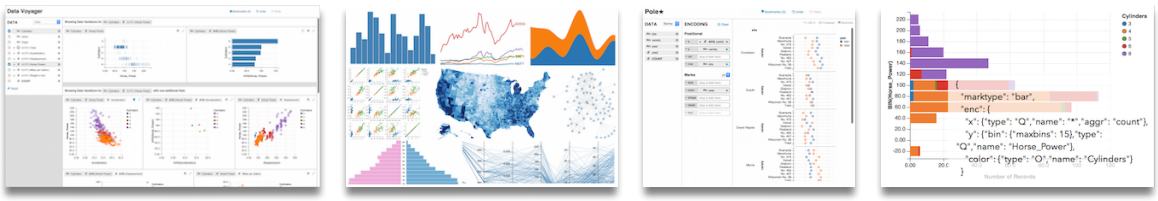
2012-2013 **University of Potsdam** – *Research Assistant* Potsdam
Worked on theory and implementation of an extension of the Clasp Answer Set Programming solver for pseudo-boolean constraints. In Knowledge Representation and Reasoning Group with Torsten Schaub.
[Research, benchmarking, logic programs, C++]

2012 **Google Summer of Code** Internet
Extend Open Data platform for information about people. [Open source development, JavaScript]

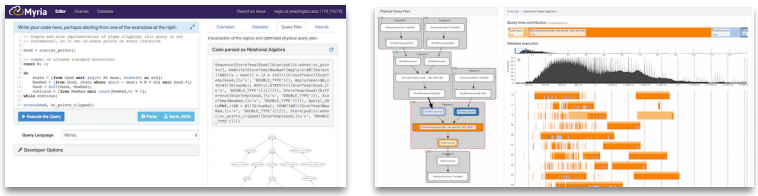
Major Projects

More on GitHub @domoritz

since 2014 **Vega, Vegalite, Polestar, Voyager** – vega.github.io UW Interactive Data Lab
Vega and Vegalite are declarative visualization grammars. Polestar and Voyager are tools for visual data exploration.



since 2013 **Myria** – myria.cs.washington.edu UW Database group and the UW eScience Institute
Myria is a distributed, shared-nothing Big Data management system. I developed new operators, the expression language, Profiling, and query language features.



2012-2014 **CKAN** – ckan.org Open Knowledge Foundation
CKAN (Comprehensive Knowledge Archive Network) is the most popular open data publishing platform used by data.gov and many other governments, organizations and universities. I developed the CKAN data store, preview API, and importer services.

Teaching Experience

Spring 2015 **Teaching Assistant, CSE 512 Data Visualization** University of Washington
Prepared discussions, graded assignments, held office hours, visualization tools and D3 tutorial.

Winter 2014 **SQL Workshop** UW eScience Institute
One day workshop on SQL for scientists at the University of Washington.

Spring 2012 **Teaching Assistant, VHDL** Hasso Plattner Institute
Prepared course material for class on VHSIC Hardware Description Language.

Languages

German native
English fluent

Programming

Python, C++, Java, JavaScript, Go, Smalltalk, CSS3 & HTML5

Systems, Frameworks & Techniques

Git, Linux, Latex, PostgreSQL, D3, Vega, Angular, Protocol Buffers, Qt, TDD, Testing, Prototyping