

Andreas Reuleaux

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German citizenship



PhD student in Computer Science at the University of Kent in Canterbury
senior software engineer
Diploma degree in Computer Science from the Technical University of Berlin

Work Experience

since september 2013

within my research studies at the University of Kent in Canterbury (cf. below): occasional *teaching* as **assistant lecturer** in Computer Science.

february 2010 - march 2011

service company **Normasys**, Paris

- february - october 2010: consultant for **Axa-Reim**, La Défense: **Modeling and development of an Oracle database system** (with Sybase PowerDesigner and Oracle-Toad) for the integration of data from the accounting / real estate domain (coming from a Cologne based SAP system). Integrity checks on the data. Development of a Python script for the loading of translations as XML in Cognos Framework Manager. **Coordinator of a german-french team.**
- since november 2010: **internal work** for Normasys:
 - revision of their accounting system based on the ETL Talend and Eclipse-BIRT for reporting.
 - contributions to a project called *SOM: situation management* based on a *Self Organizing Map*, development in C#/ .Net.

october 2007 - march 2009

Ineo ES (GDF-SUEZ group) in Vélizy-Villacoublay (near Paris), two projects:

- **Development** of a software for tracing Diesel particle filters produced by **Saint-Gobain** (in Germany). Software created in partnership with Apriso (Paris/Cracow), based on IP21/Aspentech and Flexnet/Apriso. **Contact person** for the German customer.
- Port of a tool called *Generator.21* for importing/exporting data in IP21, from VB6 to C#.

- april 2003 - september 2007 IT service, **self-employed**, various customers and projects:
- instructor for **beehive's Zope trainings** and maintenance of their training material as well as various **Python/Zope programming tasks**, notably SOAP web services for Stadtparkasse Köln.
 - **programmer and consultant** for **SNTL Publishing**, Berlin (Zope based publishing system ZMS).
 - **IT service** for **Kienzle & Gmeiner** and **Dogon**, two galleries in Berlin: general advice, installation, support and development for Apple Macintosh. Development of a database system (based on Zope 3) for them.
- august 2001 - march 2003 **software developer** at **dasburo.de** in Berlin, various projects for Berliner Bankgesellschaft and Goethe-Institut:
- Bankgesellschaft:
 - maintenance of a Lotus Notes application and later its migration to the content management system NPS5
 - contributions to the development of the internal and external web appearance of Bankgesellschaft by means of NPS5
 - conceptual work and architecture in a so called *Oracle migration project* aiming at the unification of the data sources of Bankgesellschaft by means of Oracle
 - Goethe-Institut: development of a prototype of a web based learning system with Perl
- may 2000 - july 2001 **software developer** for **Klopotek & Partner** in Berlin (software for publishing houses), e-commerce division: development of a procedure to provide as XML the complex relational data structures of the so called book trunk of their software by means of Java and Oracle techniques.
- june 1999 - april 2000 **system analyst** for **gedas** in Berlin, public sector / office automation line of business, two projects:
- development of a so called *multimedia press review system* for the German Chancellery (administration of the head of government) based on the document management system *Documentum*, responsible for its web interface (Documentum, HTML, JavaScript)
 - consultant for Deutsche Post (Switzerland): development/revision of their package tracking system with Java and Oracle
- march 1999 - may 1999 **junior consultant** for **CSC Ploenzke** in Hamburg, banking branch: contribution to the reorganization of Deutsche Handelsbank, Berlin.
- november 1995 - january 1999 **student employee** at the UNIX-Pool of the mathematics institute of TU Berlin: member of the UNIX system administration team and general programming advice for students.
- october 1994 - october 1995 **tutor** for the Pascal and Fortran programming classes of the project group for practical mathematics, PPM at TU Berlin.
- january 1993 - april 1993 **student employee** at the Fraunhofer-Institut (for production facilities and construction design, IPK) in Berlin: C and Motif programming.

Education

- since september 2013 PhD student in Computer Science at the University of Kent in Canterbury, under the supervision of Simon Thompson, focussing in my research on **Functional Programming with Dependent Types**, and **Refactoring**, and as such member of the *Programming Languages and Systems Group (PLAS)*

september 1998

diploma degree in computer science ("Diplom-Informatiker") from the Technical University of Berlin (overall score "good"), diploma thesis in the field of compilers for Functional Programming Languages, supervisor: Christian Maeder.

prediploma degree in mathematics ("Vordiplom", overall score "good"), elementary courses in business and economics

july 1987

Abitur (university entrance qualification, overall score "good")

Techniques / Interests

- My main research interests are in pure functional programming languages and **dependent types**: **Haskell**, **Idris**. Certified programming and theorem proving in general, taking inspirations from Agda and Coq i. e., as well as **refactoring**. Programming language fundamentals, type theory, type systems in general, parsing.
- Having worked with **Python** a lot, and in particular with **Pyramid** for web applications, I have switched to **Haskell** for *web development* as well: **Servant**, **Wreq**, JavaScript/React.js/CSS basics
- other languages/frameworks formerly used: C/C++, Java, C#.Net, and Zope 2/Zope 3/Plone
- XML/XSLT/XSL-FO/RELAX NG and DocBook, Latex&friends
- mastery of LINUX/UNIX (three years as a system administrator, Linux since 1993, Debian since 1997)
- configuration management: Propellor, Pyinfra, Ansible
- version control: Git
- build systems: Shake, DJB Redo
- data base systems: MySQL and MongoDB, NoSQL in general, formerly Oracle
- general software engineering skills
- network protocols, standards, security
- basic statistics: R, Python-Pandas
- Open Source techniques generally

Civil Service

october 1987 - may 1989

civil service as a paramedic for Malteser Hilfsdienst e. V. in Munich

Languages

- **German**
- excellent written and spoken **English** (spent a highschool year in the U.S., living in England since September 2013)
- fluent in **French** (lived in France for six years)

Miscellaneous

Swimming and Dance, Cuisine, Food