Curriculum Vitae – Thomas R. N. Jansson

Personal Information

Thomas R. N. Jansson
Allersgade 18, 2 tv.
2200 Copenhagen N
Denmark
tel: +45 29722392
tjansson@tjansson.dk
www.tjansson.dk

I was born and raised in Copenhagen where I have lived all my life except 6 months in which I studied on the Arctic island Svalbard and currently I am living together with my girlfriend Pernille Petersen (claissical flute player). I have always been very interested in computers and science and by studying physics I had the possibility to combine these two subjects.

Currently I work at Schlumberger as a geophysicist and Linux system administator, which is a quite ideal combination in my opinion. A typical day of work could either be spent doing wavelet extraction on seismic data or writing a munin plugin to various services on the servers.

When I am not doing physics or computers I enjoy sports. I play badminton once a week and fitness twice a week. Beside sports my hobbies are photography and traveling.

Education

Masters degree in geophysics from the University of Copenhagen (2006-2008). Thesis advisors: Klaus Mosegaard (KU) and Trine Dahl Jensen (GEUS). Thesis title: *Receiver function modeling*. Modeling local subsurface velocity structures using multiple diverse algorithms.

Bachelor degree in physics from the University of Copenhagen (2001-2006). Thesis advisor: Tomas Bohr (DTU Physics). Thesis title: Symmetry breaking in the free surface of rotating fluids with high Reynolds numbers. Enrolled: September 2001

Rysensteens Gymnasium (1998-2001) High school. I attended a special mathematical/physical line. Located in Copenhagen.

Den Classenske Legatskole (1989-1998) Municipal School.

Job experiences

2009 April→ Employed as Inversion Geophysicist at Schlumberger in Copenhagen. I am in the NSG (North Sea Geomarket), DCS (Data and Consulting Services) under RSS (Reservoir Seismic Services). Work tasks include inversion of seismic and well data for clients. Beside the geophysical work I also fill the role as Linux systems administration for selected Linux servers. I have

been maintaining both roles 50/50 since I started. IT wise I am looking after 40 servers (and 3 NetApp's) in Scotland, Norway and Denmark controlled with NIS and LDAP authentication.

2009 January (Thomas Jansson IT) Constructed web frontend for the "Shallow Water Model" for use in teaching at the geophysical department of University of Copenhagen. Referee: Eigil Kaas (kaas@gfy.ku.dk) and Aksel Walløe Hansen (awh@gfy.ku.dk).

2008 August → October (Thomas Jansson IT) Gave a one-day course in the use of the content management system Drupal for DTM International A/S. Subsequently employed as a consultant.

2008 July (Thomas Jansson IT) Building website for "First Workshop on Satellite Imaging of the Arctic", see `www.gfy.ku.dk/~awh/satellite-imaging/`.

2008 June (Thomas Jansson IT) Constructed web frontend for the "Simple Meridional Energy Balance Model" for use in teaching at the geophysical department of University of Copenhagen. Referee: Eigil Kaas (kaas@gfy.ku.dk). see `http://gfy.ku.dk/~kaas/onedmodel/run.php`.

2008 January → October (Thomas Jansson IT) Further development of the python- based graphical user interface, pyGravsoft. This time the program was tested in Malaysia and included user surveys.

2007 June (Thomas Jansson IT) A PHP/MySQL based web page for the magazine Kvant, see `www.kvant.dk`. The new site has a searchable index of every article in Kvant.

2007 May (Thomas Jansson IT) Building a python based graphical user interface to a text based gravimetric program called Gravsoft, see `www.gfy.ku.dk/~cct/`. Referee: Professor Carl Christian Tscherning (cct@gfy.ku.dk).

2007 May (Thomas Jansson IT) Building a Xoops (CMS) based web page for LJ Ejendomme, see `www.lj-ejendomme.dk`.

2006 August → 2009 Feburary (Thomas Jansson IT) Unix system administrator at the Geological Institute, University of Copenhagen. Work tasks: Normal system administration of SUN and Linux servers as well as setting up a small Linux cluster for sea modeling. Referee: Professor Hans Thybo, thybo@geo.ku.dk.

2006 July (Thomas Jansson IT) Building and setup of a Linux based file and applications server for Utopiarejser.

2006 March (Thomas Jansson IT) Building a web page for "Copenhagen Global Change Initiative", see `www.klima.nbi.dk`.

2006 January → Started a company: *Thomas Jansson IT*. I am doing consulting jobs as a programmer, system administrator, server building and web design. In this connection I write IT articles on my blog `www.tjansson.dk`.

2005 January → 2005 July Substitute math and physics teacher at Bjørns international school (elementary school).

Courses taken

6-jun-2010 → 25-jun-2010 Schlumberger DCS DeepBlue 2 - Inversion Geophysics and Advanced Sesimic Inversion Techniques
This course will introduce the student to the concepts of seismic inversion and the various methods and algorithms available. Second half covers Advanced Sesimic Inversion Techniques.

23-nov-2009 → 27-nov-2009 RH300 RHCE Rapid Track Course and RHCE Exam.
The Red Hat Certified Engineer course is designed for UNIX- and Linux-experienced users, networking specialists, and system administrators. This 5-day course provides intensive hands-on training on Red Hat Enterprise Linux 5, and includes the RHCE Certification Lab Exam on day 5.

7-aug-2009 → 27-sep-2009 Schlumberger DCS DeepBlue 1 Reservoir Characterization course.
The course is designed as a basic introduction to integrated reservoir characterization. The course content covers the fundamentals of Petrophysics, Sonic waveforms, Borehole geology, Reservoir geology and Seismic. Included is the practical aspects of analysis of data from distinct sources and disciplines for characterization. Ultimately the integration of this data and mapping for reservoir visualization. Software used Geoframe and Petrel.

29-jun-2009 → 03-jul-2009 Data ONTAP Fundamentals.
This 5-day instructor-led course introduces basic support and administrative functions of the Data ONTAP operating system. The course emphasizes core facts and concepts of a NetApp Storage System. The elements of the Data ONTAP operating system covered in this course are Write Anywhere File Layout (WAFL) file system, volumes, aggregates, qtress, and quotas. Hands-on labs for the course focus on the basic administrative use of Data ONTAP in NAS and IP-SAN environments.

Extracurricular activities

2008 July 21 → 1 August Attended the ESA sponsored summer school in Alpbach, Austria. The subject was "Sample Return from Moon, Asteroids and Comets".

2007 December → Editor at Kvant. Kvant is the members magazine for “Dansk Fysisk Selskab”, “Astronomisk Selskab”, “Selskabet for Naturlærens Udbredelse” and “Dansk Geofysisk Forening”. 3000 copies four times a year.

2006 August → December Studies at UNIS, Svalbard. I studied oceanography and remote sensing for one semester at Svalbard, 78° N.

2001 December → 2008 June Editor at *Gamma*. *Gamma* is student-operated magazine sponsored by the Niels Bohr Institute. 3000 copies four times a year. Functioned as editor in chief in several periods.

2007 February → 2008 September Board member in the geophysical student union.

Publications

Thomas R. N. Jansson, Martin P. Haspang, Kåre H. Jensen, Pascal Hersen, and Tomas Bohr, *Polygons on a Rotating Fluid Surface*, Physical Review Letters **96** 174502 (2006). doi:10.1103/PhysRevLett.96.174502

The article was the continued work of my bachelors project. The article made quite a buzz and was cited in news medias such as Nature and the New York Times. See

www.nature.com/news/2006/060515/full/news060515-17.html
tierneylab.blogs.nytimes.com/2007/04/05/and-saturns-hexagon-shall-be-called/

Janni Nielsen, Thomas R. N. Jansson, Carl C. Tscherning, *Creating a user interface to GRAVSOFT*, Report for Klang Valley Height Modernisation Project, 2008.

J.Nielsen, C.C.Tscherning, T.R.N.Jansson, R.Forsberg, *Development of a Python interface to the GRAVSOFT gravity fiel programs*, proceedings of IAG 2009 Scientific Assembly "Geodesy for Planet Earth", Springer.

Thomas R. N. Jansson, *En problemorienteret introduktion til Linux.* A 130-page guide to problem solving in Linux and open source programs. Licensed under *Open document license* can be found at `www.tjansson.dk/?page_id=4`

Conference contributions

R. Forsberg. T. R. N. Jansson, J. E. Nielsen, C. C. Tscherning, *Development of a Python interface to the GRAVSOFT gravity field programs.*, IAG 2009 - Geodesy for Planet Earth, Buenos Aires (September 2009).

D. G. Bennett, H. Changela, N. Dalcher, C. L. Goldmann, M. Heger, T. Hiriart, T. R. N. Jansson, S. Kern, K. Motamedi, M. Petitat, G. Sangiovanni, J. Spurmann, A. Stiegler, M. Unterberger, E. Vigren. *I. T. – R. O. C. K. S. Comet Nuclei Sample Return Mission*, International Astronautical Congress September 2008, Glassgow.

Tomas Bohr, Pascal Hersen, Thomas R. N. Jansson, Martin P. Haspang and K. H. Jensen, *Polygons on a Rotating Fluid Surface*, The 6th Euromech Fluid Mechanics Conference, Stockholm (June 2006)

T.R.N. Jansson, M.P. Haspang, K.H. Jensen, P. Hersen & T. Bohr, *Polygons on a Rotating Fluid Surface*, Second International Symposium on Instability and Bifurcations in Fluid Dynamics, Technical University of Denmark (August 2006)

Presentations

The following presentations was can be found on `www.tjansson.dk`. All the presentation was held at the University of Copenhagen.

- *Receiver function modellering*, Geofysikdag held by "Dansk Geofysisk Forening", 11 April 2008.
- *Dæmpning af seismiske bølger*, Hovedfagskollokvium, 21 December 2007.
- *Et bachelorprojekt om roterende vand*, inspirational talk for new bachelor students, 9 November 2007.

Selected popular science articles

As mentioned earlier I was the editor at Gamma for 7 years and later started at Kvant. During this period I have written 24 small articles and news stories on physics and technology. The articles can be found on the pages: `www.kvant.dk` and `www.gamma.nbi.dk`. Where no other authors are stated I am the author.

- *Review: "Kvantespring i det 20. århundrede"*, Gamma, fall, 2008.
- *Review: "Insultingly stupid movie physics"*, Kvant 3, 2008.
- *Eksperiment med flydende metaller relateret til jordens magnetfelt*, Gamma 145, 2007.

- *Ru vingeoverflade kan spare brændsel*, Gamma 141, 2006.
- Kåre H. Jensen og Thomas R. N. Jansson, *Open source programmer til videnskabelig brug*, Gamma 140, 2005.
- Alexandru Nicolin, Thomas R. N. Jansson og Andreas Lemark, *Interview med Nobelpristager David J. Gross*, Gamma 138, Maj 2005.
- *Review: "Fra superstrenge til stjerner"*, Gamma 132, 2003.

Computer skills

Operating systems Advanced experience with the most flavors of Linux, Ubuntu, Debian, CentOS, Mandriva and Rocks Cluster Linux. Experienced with Sun Solaris 5.7 → 5.9, Microsoft Windows and to some extent Mac OS X which is very *nix like.

Servers and databases Apache2, munin, openssh, subversion, NFS, CUPS, MySQL.

CMF, CMS and CMS-like systems Xoops, Wordpress, Drupal, Limesurvey.

Programming, scripting and markup languages Python, Bash and tcsh (daily). PHP, LaTeX2$_\varepsilon$, HTML, CSS, matlab (Often). C++ and Fortran (seldomly).

Courses Attended 5 days NetApp course, 5 days RHCE Rapid Track Course.

Certifications Red Hat Certified Technician.

Open source projetcs Co-author and owner of the python based open source project Sinthgunt. An easy python/GTK frontend to ffmpeg using more than 100 pre-configured conversion settings. Included in the repositories of various Linux distributions.
http://code.google.com/p/sinthgunt/

Language skills

My mother tongue is Danish, but almost everything I write is in English both in connection to computers in general on my blog www.tjansson.dk and in scientific work. **Danish**: Native tongue. **English**: Fluent. **German**: High-school level.