

Curriculum Vitae

Stefan Ivarsson

Personal information:

Date of birth: 12 February 1975
Place of birth: Jämshög, Sweden
Citizenship: Swedish
Sex: Male

Home address:

Sunnanväg 10
S-243 35, Höör
SWEDEN

email: stefan.ivarsson@dragondesign.se
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homepage: <http://www.dragondesign.se>

Education/Academic/Job career:

2010-08-01 Consultant at AddPro AB, multiple missions.
2010-01-01 Consultant at AddPro AB, contracted to IKEA-IT as Security Specialist.
2009-02-01 Consultant at AddPro AB, contracted to STEricsson as Software Engineer.
2007-07-30 Consultant at Defensor Sverige AB, contracted to Ericsson Mobile Platforms as Software Engineer.
2006-08-08 Software Engineer / Digital Media specialist, at Qibus International AB, Research & Development
2004-08-23 Postdoc position at Goddard Space Flight Center / NASA, code 667, Greenbelt, MD, USA, contracted through The Catholic University of America, Washington D.C., USA
2004-05-22 Ph.D. degree in Physics, Lund Observatory, Lund University, Sweden.
Title: "Advances in Stellar Astrophysics from Laboratory Spectroscopy."
Thesis advisor: Doc. G. M. Wahlgren.
2002-04-02 Licentiate degree in Physics at Lund Observatory, Lund University, Sweden.
Title: "A spectroscopic study of the rare earth element Praseodymium".
Advisor: Doc. G. M. Wahlgren.
1999-10-01 Ph.D. program at Lund University, Natural Sciences faculty, Department of Physics, Atomic Spectroscopy group, Sweden.
Advisors: Doc. G. M. Wahlgren and Prof. S. Johansson.
1999-02-16 Master degree in Physics at Department of Physics, Lund University, Sweden.
Title: "Analysis of the Chi Lupi spectrum in the optical region between 4070 and 6740 Å".
Advisor: Doc. G. M. Wahlgren.
1994-1999 Mathematics & Natural sciences program at Lund University, Sweden
1995-1996 Compulsory military service, S2/K3 Karlsborg, Sweden.
1994,1996 Summer work at Volvo Personvagnar AB, Olofströmsverken, Olofström, Sweden

Specific Assignments:

1999-2004 UNIX administrator, support and UNIX software maintenance at the Lund Observatory.
Adminstrating the department's SUN server, WWW server and FTS reduction program server.
2001-2004 Member of the "Computer Security Group", Lund Observatory, Lund University.
1999-2001 Member of the "Computer Security Group", Department of Physics, Lund University.

Language skills / Miscellaneous:

Owner of a small personal firm "Stefan Ivarsson, Design & Visualisering"
Fluent in English and Swedish. Ability to speak, read and write German.
Swedish (EU) and American (Maryland) Driver's Licenses.
Awarded J-1 visum for working in the United States (2004-08-18 to 2006-08-18) with comprehensive security scanning by NASA, FBI, NSA, CIA and Homeland Security.
Have US Social Security number

Computer / programming skills:

Very good programming skills in IDL, IDL-widgets, C/C++, JAVA, Java ME, JAVA servers, .NET, C#, Microsoft SDK extensions, Python, Perl, FORTRAN, HTML, CSS, FLASH, ACTIONSCRIPT, JAVASCRIPT, PHP, MySQL, BASH, TCSH, TCL/TK, OPENGL and LaTeX. Ability to create standalone installations in a UNIX environment and experience in porting program code to several different UNIX environments. Utilization of middle-ware packages such as AMFPHP/ZEND to bind extensive MySQL data structures to dynamic environments in FLASH. Expertise in Amazon.com Web Solutions such as the S2 storage cluster and the EC2 virtual server computing cloud for scalable solutions as well as rapid deployment. Automated and scripted trans-coding of audio and video files optimized for media streaming server and setup of the mentioned servers.

Good knowledge in product management, from design documents and white papers to the delivery and deployment of the final software. Team experience with agile software development techniques such as SCRUM and XP. This include time management, statistical information gathering, research, progress reports and to some degree management of resources in terms of money and hiring personnel. Experience with Secure Software Development Lifecycle, architecture, engineering and testing.

Good knowledge in optimization and construction of software running on limited and embedded systems as well as construction of modular build systems, tools and graphical user interfaces for such software development. Experience in writing apps for iOS, Android and Windows Mobile 7.

Good knowledge and experience in the operating system environments, LINUX (major distributions, such as Ubuntu, Redhat), SUN Solaris, Mac OS X, Microsoft Windows including integration and communication between UNIX, OS X and Windows systems in a networked environments. Special focus on security and performance. Ability to setup and manage version controlled repositories. Computer hardware monitoring system experience with Nagios server and client.

Good knowledge and experience with data center housed rack mounted servers and network equipment from maintaining and supporting 17 server in a server facility at Verizon, Kista, Sweden and 4 servers at Bahnhof, Malmö, Sweden.

Good knowledge in network security, planning and hardware, such as hubs, switches, repeaters, routers, access points, firewalls, fiber, wireless network solutions. Experience with Juniper and Cisco monitoring, using IPS/IDS. Experience in installing, setup and maintenance of LINUX based server solutions based upon servers such as ROXEN/APACHE/TOMCAT-webservers, QMAIL-smtp/pop3/imap and SQUIRELLMAIL-webmail and the inclusion of non-standard interaction among the components using CGI-BIN, SSL, PHP and MySQL. Web analytics tool usage and setup of specific captures aimed towards reports for business intelligence. Additional server skills using MediaWiki, Wordpress and php-driven-forums to create communities.

Good program specific knowledge includes among others, utilization of graphic packages such as Adobe Creative Suite, Adobe After Effects, Adobe Streamliner, Adobe Acrobat, GIMP, Autodesk MAYA, Autodesk 3D Studio MAX, Blender, POV-Ray, NextLimit Realflow, Microsoft Office, Macromedia Dreamweaver, iMovie HD for creations of for instance scientific visualizations, short movies, animations and presentations

Publications (Refereed Journals):

"The Photospheric abundance of Praseodymium in the Sun"

S. Ivarsson, G. M. Wahlgren, H. G. Ludwig

Astron. Astrophys. to be submitted (2009)

"Experimental oscillator strengths and hyperfine constants in Nb II"

Nilsson, H.; Ivarsson, S.

Astron. Astrophys. 492, 609N (2008)

"NUV spectrum of eta Car in 2003.5"

Nielsen, K. E.; Ivarsson, S.; Gull, T. R.

ApJS 168, 289N (2008)

"Eta Carinae across the 2003.5 Minimum: Spectroscopic Evidence for Massive Binary Interactions"

Nielsen, K. E., Corcoran, M. F., Gull, T. R., Hillier, D. J., Hamaguchi, K., Ivarsson, S., Lindler, D. J.

ApJ 660, 669N (2007)

"Eta Carinae across the 2003.5 minimum: Deciphering the spectrum towards Weigelt D"

Nielsen, K. E., Ivarsson, S., Gull, T. R.

ApJS, 168, 289N (2007)

"Hyperfine structure of the ground state in singly ionized manganese"

Blackwell-Whitehead, R. J., Toner, A., Hibbert, A., Webb, J., Ivarsson, S.
MNRAS, 364, 705B (2005)

"Constraining the very heavy elemental abundance peak in the chemically peculiar star Chi Lupi, with new atomic data for Os II and Ir II."

S. Ivarsson, G. M. Wahlgren, X. Dai, H. Lundberg, D.S Leckrone
Astron. Astrophys. 425, 353, (2004)

"Improved oscillator strengths and wavelengths for Os I and Ir I, and new results on early r-process nucleosynthesis"

S. Ivarsson, J. Andersen, B. Nordström, X. Dai, S. Johansson, H. Lundberg, H. Nilsson, V. Hill, M. Lundqvist, J.F. Wyart
Astron. Astrophys. 409, 1141, (2003)

"Measurements of transition probabilities for complex ions"

H. Nilsson, S. Ivarsson, H. Sabel, C.M. Sikström, L.J. Curtis
Physica Scripta T105, 61 (2003)

"The Presence of Nd and Pr in HgMn stars"

L. Dolk, G. M. Wahlgren, H. Lundberg, Z. S. Li, U. Litzen, S. Ivarsson, I. Ilyin, S. Hubrig
Astron. Astron. Astrophys. 385, 111 (2002)

"Experimental oscillator strengths in U II of cosmological interest"

H. Nilsson, S. Ivarsson, S. Johansson, H. Lundberg
Astron. Astrophys. 381, 1090 (2002)

"Accurate wavelengths, oscillator strengths and hyperfine structure in selected praseodymium lines of astrophysical interest"

S. Ivarsson, U. Litzen, G. M. Wahlgren
Physica Scripta 64, 455 (2001)

Publications (Proceedings):

"Searching for Radial Velocity Variations in eta Carinae"

Iping, R. C., Sonneborn, G., Gull, T. R., Ivarsson, S., Nielsen, K
BAAS, 17, 506I (2005)

"NUV Spectroscopic Studies of Eta Car's Weigelt D across the 2003.5 Minimum"

Ivarsson, S., Nielsen, K. E., Gull, T. R., Hillier, J. D.
BAAS, 11, 408I (2005)

"Eta Carinae: Orientation of The Orbital Plane"

Gull, T. R., Nielsen, K. E., Ivarsson, S., Corcoran, M. F., Verner, E., Hillier, J. D.
BAAS, 11, 407G(2005)

"The Character and Variability of the Eta Carinae Wind Lines"

Nielsen, K. E., Corcoran, M. F., Gull, T. R., Ivarsson, S., Hillier, J. D.
BAAS, 11, 405N (2005)

"The Presence of UV Molecular Absorptions at -513 km/s in the Ejecta Spectrum of Eta Car"

Nielsen, K. E., Gull, T. R., Vieira Kober, G., Ivarsson, S., Eta Car HST Treasury
BAAS, 205, 2002N (2004)

"Line absorption in the FUSE spectrum of the CP star 17 Com A"

G. M. Wahlgren, S. Ivarsson, S. Johansson, C. R. Proffitt, S. J. Adelman, J. Rice, A. F. Gulliver, G. Hill, D. S. Leckrone, D. P. Smith
BAAS, 35, 1357 (2003)

"Revising the abundance of Pr in the solar photosphere"

S. Ivarsson, G. M. Wahlgren, H-G. Ludwig
BAAS, 35, 1421 (2003)

"Emission lines in optical spectra of He-weak stars"

G. M. Wahlgren, S. Hubrig, S. Ivarsson
International Conference on magnetic fields in O,B and A stars
ASP Conference series, 305, 256, (2003)

Laboratory experience:

Operation and maintenance of the Lund UV Fourier transform spectrometer (FTS). Building, operation, maintenance and development of the Lund Observatory Vacuum Echelle. Good knowledge in multi-component optical systems, lasers, filters, photodiode detectors, CCD devices, vacuum techniques, high voltage light sources, pressurized gas systems and handling with hazardous elements such as concentrated acids, pure metals and liquid nitrogen. Operation of large optical devices, such as telescopes (Nordical Optical Telescope, La Palma) and the attached SOFIN spectrograph including acquisition and reduction of CCD images using both special software, 4A and open source the IRAF library.

Teaching:

- 2001-2002 Department of Physics, Lund Institute of Technology, Sweden. Teaching assistant using a commercial VIS-IR Fourier transform spectrometer and a grating spectrograph with a Peltier cooled CCD to study molecular spectrum of exhaust fumes and atomic spectrum of fluorescence tubes.
- 1999-2001 Department of Physics, Lund University, Sweden. Teaching assistant using a grating spectrograph with photographic detection to study atomic spectra, structure and determine the Rydberg constant.
Teaching assistant using a Cavendish torsion setup to determine the gravitational constant G.

Awards:

- 2003 Kungliga Fysiografen, travel-stipend for young researchers. (13000 SEK)
- 2002 Swedish Research Council, travel-stipend to NOT observations (22000 SEK)
- 1999 Lund University, Natural Sciences faculty, summer stipend. (15000 SEK)

Conferences / Invited presentations:

- "Öredev", 2008, 2009, 2010, Malmö, Sweden, participant
- "JavaOne", 2008, San Francisco, CA, USA
Ericsson Mobile Platform, demo application for IP-Multimedia-Subsystem, interactive phonebook, demoed in the Ericsson Pavilion.
- "207rd AAS meeting", 2006, Washington, D.C, USA
Audio visual contribution: 3D animation of a "Trip to Eta Carinae", published on a Space Science Telescope Institute (STSCI) DVD.
- Poster presentation: "Spectroscopic investigation of Weigelt D"
Goddard Space Flight Center, SEAL-seminar series, 2005, Greenbelt, MD, USA
- "Spectroscopic variations towards Eta Carinae, Weigelt D"
"203rd AAS meeting", 2004, Atlanta, GA, USA
- Oral contribution: "Revising the abundance of Pr in the solar photosphere"
- Poster presentation: "Line absorption in the FUSE spectrum of the CP star 17 Com A"
- "Astronomers' Days", 2003, Lund, Sweden
Oral contribution: "From nano-seconds to peta-seconds, dating the Galaxy's elders"
- Poster presentation: "Lund Observatory Vacuum Echelle"
- Poster presentation: "Lund UV Fourier transform spectrometer", instruments of the Atomic Astrophysics group
- "Spectroscopy of Highly Charged Ions: Not Just the Light at the End of an Accelerator", 2003, Lund, Sweden
- Poster presentation: "The Lund Observatory Vacuum Echelle"
- "Atomic Spectroscopy and Oscillator Strengths (ASOS7)", 2001, Belfast, Northern Ireland
Poster presentation: "Laboratory analysis in selected praseodymium lines of astrophysical interest"
- "Astronomers' Days", 1999, Stockholm, Sweden
Poster presentation: "Using Atomic Spectroscopy to improve stellar spectrum analysis"

Astronomical Observations

- Nordic Optical Telescope (NOT), 2002, La Palma, Spain
Awarded 3 full nights with the SOFIN spectrograph, investigating emission lines in late B-type stars.
Co-investigator: Doc. G. M. Wahlgren.