

Curriculum Vitae for Åsmund Ødegård

Personal information

Address:	Sneisveien 26	E-mail:	asmund@xal.no
	1407 Vinterbro	Phone:	+47 900 69 915
Born:	23.08.1972	Nationality:	Norwegian

Summary

I am a senior software developer, project leader, and researcher, with 19 years of professional experience. Most of my career prior to founding Expert Analytics AS together with Ola Skavhaug, has been with Simula Research Laboratory, ranked as Norway's best ICT research institution in 2012. Through various positions in that company I have obtained a broad set of technical and management skills, which I since 2013 has used as Managing Director and Senior Consultant in Expert Analytics. My main areas of technical expertise spans from mathematical software development and scripting, to administration of advanced ICT solutions and configuration management. Both through education and practical hands-on experience I have developed strong analytical skills within my fields of expertise.

As manager and leader of several projects with internal and external participants, I have learned the importance of understanding the strengths and skills of the participants in order to deliver on time. Communication within the team is always key to ensure that everyone have ownership in the project and stay motivated. This must always be balanced with a firm leadership.

Technical skills

Frameworks	Google App Engine, Puppet, Numpy, Pandas, SciPy, MPI, React, Knockout, jQuery, RequireJS, Web.py, Turbogears, Bootstrap, Slim, Twig, AWS, Azure
Languages	Python, C, C++, C#, PHP, Java, Javascript, Bash, Matlab, L ^A T _E X, HTML, Sql, CSS, Scala, Lisp
Tools	Linux, OS X, VirtualBox, Vagrant, MySql, Sqlite, NoSqls, Apache, Nginx, Git, Subversion, CVS, Mercurial, Make, SCons, Autoconf, buildout

Education

2006	Dr. Scient in Scientific Computing, Faculty of Mathematics and Natural Sciences, University of Oslo. Thesis' title "Applications of high level software for parallel solution of Partial Differential Equations."
1995	Cand. Scient in Applied and Industrial Mathematics, Department of Mathematics, University of Oslo

Professional experience

2013 –	Managing Director and Consultant at Expert Analytics
2011 – 2013	Director of External Research Funding at Simula Research Laboratory
2010 – 2011	Director of Administration at Simula Research Laboratory
2008 – 2010	Assistant Director of Administration at Simula Research Laboratory
2004 – 2009	IT Manager at Simula Research Laboratory
2005 – 2007	Research Scientist at Simula Research Laboratory
2001 – 2005	Scientific Programmer at Simula Research Laboratory
2000 – 2001	Scientific Programmer at Department of Informatics, University of Oslo
1996 – 1999	Research Assistant at Department of Informatics, University of Oslo
1996	Summer intern, SINTEF Applied Mathematics
1993 – 1994	Assistant teacher, Department of Mathematics, University of Oslo

Languages

English	Fluent
Norwegian	Mother tongue

Personal skills

Communication	Writing and editing, typesetting & typography, try to learn French
Funding	EU and RCN funding instruments, consortium development, proposal writing
Management	Development and implementation of strategies, guidelines and procedures, lead and encourage staff, personnel follow-up
Technology	Extensive knowledge about system administration; always eager to learn about new frameworks and open source technologies; solution architect and problem solver

Some interests and hobbies

Hard	Bicycle, motorcycle
Soft	Playing clarinet and saxophone, cooking & wine, photography
Tech	Fonts, typesetting with T _E X, computers, gadgets, coding

Extended descriptions of selected projects

Activity	Auka/mCASH development
Role	Senior Python Developer
Staffing	12–15 developers
Description	I worked with mCASH, later renamed Auka, in two periods—from 2013–2014 and from February 2016 onwards. My responsibilities in this project included integrations of third-party APIs for user-identification with Norwegian BankID, and development of APIs for access to mCASH resources for external integrators, based on OpenID Connect and Oauth protocols. I was also deeply involved in design and implementation of the transactional engine handling the payments; the core of the mCASH system. This engine connects persons, merchants and banks together, and computes transaction fees for involved parties in addition to moving correct amounts. The backend system of mCASH is implemented solely in Python. I have also been involved with other parts of the code base, even javascript frontends implemented with React. The development at mCASH followed the Scrum agile method.
Tools	Python, Google app engine, webapp2, Jinja2, Javascript, jQuery, HTML, Nose tests, Git, Jira.
Activity	FrontSystems development
Role	Senior Developer and adviser
Staffing	3 developers
Description	FrontSystems is a Norwegian company developing a web-based POS system. The current system was build on some technologies that are approaching EOL, and my main role was to advise and contribute towards a more modern architecture. This include moving development and deployment to Github and Azure as well as implementing reporting services in POS backend using client-side JS rather than Microsoft reporting services.
Tools	C#, JavaScript, Asp.Net, Knockout, Bootstrap, RequireJS, jQuery, MSSQL, TeamCity, Git, Azure.

Activity	Establishing technical infrastructure of Simula Research Laboratory
Role	Project leader and main architect
Staffing	Project leader, 4 system administrators, external contractors
Description	For the newly created research institute we designed and developed a full technical infrastructure in the renovated office building at the old airport at Fornebu; office networks, back-end facilities and computer room, telephone systems, printers, servers, etc. Technical requirements, budgetary limitations and practical issues had to be taken into consideration in order to establish a scalable and flexible infrastructure.
Activity	Building linux clusters
Role	Project manager, lead architect and developer
Staffing	2 additional Systems administrators
Description	For the scientific computing group at Ifi, University of Oslo and later at Simula Research Laboratory, I was in charge of building three different compute clusters for advanced numerical computations. The systems grew from 32 compute cores up to 576, and was configured with core os, multiple networks, schedulers and queue systems. The first clusters where managed with CFEngine as provisioning system, while the last one was provisioned using Puppet.
Tools	Debian GNU/Linux, CFEngine, Puppet, OpenPBS, MAUI, MPIch, BSP,
Activity	Outsourcing of ICT services
Role	Project coordinator
Description	Simula Research Laboratory decided in 2012 to put a contract for its IT operations out for tender, after running the services with internal resources for a decade. My core responsibility was authoring the specification of the tender and evaluating the offers as well as participate in negotiating the final contract. I was also responsible for handling the communication with all the internal stakeholders. As the change affected the daily work of all employees it was particularly important to have an open and inclusive dialog in the process to ensure a satisfactory result.
Activity	PySE
Role	Main developer and researcher
Description	Python Stencil Environment (PySE) is a high level environment for solving partial differential equations using finite difference methods (FDM). The environment provides an abstraction for the stencil concept of FDM, which makes it possible to implement FDM-based simulators in notation very close to the mathematical formulation. The environment is inherently parallel and distributes a problem on the available hardware in an optimal way based on the communication patterns defined by the stencils. PySE was developed as part of my PhD studies and published as open source software.
Tools	Python, Numpy, Scipy, SWIG, C++, MPI

Activity	SmartBlikk development
Role	Systems Architect and Senior Developer
Description	SmartBlikk is a business intelligence solution for the SME market. My responsibility was development of an API for the system for import of data from external systems, as well as integrating external APIs for use from SmartBlikk, mainly for importing accounting data. The pilot of SmartBlikk was created by the founder of Intelliview, and I am in charge of designing and implementing the second version of the system with dynamic in-browser reporting capabilities. I am also in charge of establishing a deployment environment for SmartBlikk on the cloud, specifically on Amazon Elastic Beanstalk scaling out with multiple EC2 nodes and using AWS RDS database.
Tools	Php, Mysql, Slim, Twig, Javascript, jQuery, AWS EB, AWS EC2, AWS RDS.