

Curriculum Vitae for Åsmund Ødegård

Personal information

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| Born: | 23.08.1972 | | |

Summary

I am a senior software developer, project leader, and researcher, with 20 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

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| 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#, Go, PHP, Java, Javascript, Bash, 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

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| 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

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| 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

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| English | Fluent |
| Norwegian | Mother tongue |

Personal skills

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| Communication | Writing and editing, typesetting & typography |
| 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

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| Hard | Bicycle, motorcycle |
| Soft | Playing clarinet and saxophone, cooking & wine, photography |
| Tech | Fonts, typesetting with \TeX , computers, gadgets, coding |

Extended descriptions of selected projects

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| Activity | Vipps development |
| Period | 05.2017 – |
| Role | Senior Consultant |
| Staffing | 20+ developers, |
| Description | From May 2017 I worked with Vipps AS, the company established by DNB, Sparebank 1, and over 100 other Norwegian banks to operate and further develop the Vipps payment system. I was working together with in-house developers and other consultants on development of core and auxillary systems. I was project manager and lead developer for systems for Merchant onboarding and some of the other projects made necessary in connection with the establishment of Vipps as a separate legal entity. Further, I was continuing work along the lines of earlier mCASH development relevant in the new company. |
| Tools | Java, Go, Azure, MSSQL, PostgreSQL |
| Activity | Auka/mCASH development |
| Period | 08.2013 – 05.2014, 02.2016 – 04.2017 |
| Role | Senior Python Developer |
| Staffing | 12–15 developers |
| Description | I worked with mCASH, later renamed Auka, in two periods—from August 2013 until May 2014 and from February 2016 until April 2017. 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. I was lead developer for a new settlement system for merchants. The backend system of mCASH is implemented solely in Python. I have also been involved with other parts of the code base, including javascript frontend 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 |
| Period | 01.2015 – 01.2016 |
| Role | Senior Developer and adviser |
| Staffing | 3 developers |

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| 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. |

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| Activity | Establishing technical infrastructure of Simula Research Laboratory |
| Period | 01.2001 – 12.2002 |
| 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. |

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| Activity | Building linux clusters |
| Role | Project manager, lead architect and developer |
| Staffing | 3 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 clusteres 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 |

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| 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. |

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| Activity | PySE |
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| 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 |
| Period | 06.2014 – 06.2015 |
| Role | Systems Architect and Senior Developer |
| Staffing | 2–5 developers |
| 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. |