Curriculum Vitae for Jonathan Feinberg

Personal information

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Summary

I have recently defended my doctorate at the Department of mathematics at the University of Oslo. My educational background is in probability theory, statistics and machine learning with heavy focus on numerical programming and practical applications. My skills include programming in Python, which I have used to write a few software packages. I am also familiar with other languages, like Matlab and R, and can easily adapt beyond this.

Technical skills

Frameworks	Keras, PyMC, Matplotlib, Numpy, SciPy, GIS, MPI
Languages	Bash, C++, Python, R, Vimscript, LaTeX, Markdown/RST, MATLAB
Tools	Git, CircleCI, Pytest, CodeCov, Linux, Regex, Sphinx, Sqlite

Education

2015	Ph.D. in Mathematics from the Department of Mathematics, University of Oslo. Title of dissertation: Some Improvements and Applications and Non-intrusive Polynomial Chaos Expansions". Supervisor: Professor Hans Petter Langtangen.
2009	M.Sc. in Modelling and Data Analysis from the Department of Mathematics, University of Oslo. Title of thesis: Threshold Definition of Early Warning Systems to Natural Hazards". Supervisor: Professor Bent Natvig.
2007	B.Sc. in Mathematics, Informatics and Technology, University of Oslo.

Professional experience

2016 –	Consultant at Expert Analytics
2014 – 2015	20% Teaching Position at the Department of Informatics, University of Oslo
2014 – 2015	10% Private tutor at high school and under-graduate level at House of Math
2014 – 2015	50% Scientific Programmer for Simula Research Laboratory
2013 – 2014	10% Consultant at Kalkulo AS
2011 – 2014	Ph.D. student at Simula Research Laboratory
2009 – 2010	Research Assistant at Texas A&M University
2009 – 2009	Science Teacher at Smerud Medical Research
2008	30% Assistant Teacher at Department of Mathematics, University of Oslo
2007 – 2008	20% Student Ambassador at Public Relations and Events Office, University of Oslo
2007	30% Data Analyst at If P&C Insurance

Languages

English	Fluent
Norwegian	Mother tongue

Personal skills

Communication	Able to convey research and condensed knowledge into a presentable and explainable form. Extensive experience as university lecturer and teacher.
Planning	I am a "Problem solver", able to see strengths and weaknesses of proposed progress plans, grounded in fact-based thought.
Technology	Large enthusiasm for learning and mastering anything new within science, technology and programming.

Some interests and hobbies

Personal	Dancing, Traveling
Tech	Biotechnology, Web-design

Extended descriptions of selected projects

Activity	Machine learning for Oncoimmunity
Role	Consultant
Staffing	9 developers

Description	OncoImmunity develop bioinformatics software that has the ability to empower precision cancer immunotherapy, and thus improves the outlook for patients with late-stage disease. My role is to develop machine-learning methods applied to genomic data for tumor immune profiling. The goal is to select optimal patients to be assigned to cancer immunotherapy clinical trials.
Tools	Python, Scikit-learn, Keras

Activity	Information screen for Høyer
Role	Backend developer
Staffing	2 developers
Description	Høyer is a clothing department store chain in Norway. The have multiple outlets across the country. Our job was to create information screen based on the daily and monthly sales and budget numbers. My contribution was to implement a web application that retrieved and processed data to be displayed.
Tools	Python, Flask, Sqlite

Activity	Matlab to C++ converter
Role	Software developer
Staffing	2 developers
Description	As part of an EU sponsored project, Simula Research Laboratory and Western Geco is collaborating to speed up the code translation step from Matlab to C++ using Armadillo. The approach involves creating a full parser that creates semi-automatic translations. I contributed as the developer of the parser, and the structure of translation.
Tools	Python, Armadillo, Sphinx

Activity	Chaospy – Uncertainty Quantification Toolbox
Role	Researcher and algorithm developer
Staffing	1 researchers
Description	Chaospy is an open source toolbox containing a large collection of uncertainty quantification tools. It also include some state-of-the-art tools designed to reduce the computational budget in analysis. I wrote the software as part of my Ph.D. work. In collaboration with other researchers, I also help integrate Chaospy into other practical applications involving for example blood flow simulations.
Tools	Python