

# Tuomas Airaksinen

## *Curriculum Vitae*

### Personal and contact details

**Name:** Tuomas Antero Airaksinen

**Date of birth:** March 1982

**Nationality:** Finnish

**Current position:** Software Developer

**E-mail:** forename.surname at gmail.com

**Homepage:** <http://tuomasairaksinen.fi/>

### Education

**27.10.2010 Doctor of Philosophy**, Computer Science, University of Jyväskylä. Dissertation thesis "*Numerical methods for acoustics and noise control*".

**28.4.2006 Master of Philosophy**, Physics, University of Jyväskylä. Pro gradu thesis "*Numeric fluid flow computing with lattice-Boltzmann method*", with grade *eximia cum laude approbatur*. Major subject: Physics, grade *excellent*. Minor subjects: Computer science, grade *excellent*, Mathematics, grade *good*

**6.1.2002 Finnish army**, Signalist, 6 months (KarPr/2.VK/2001/2)

**2.5.2001 Matriculation examination** with following qualifications: Mathematics, grade *eximia cum laude approbatur*, Physics, grade *laudatur*, Finnish (mother language), grade *laudatur*, English, grade *magna cum laude approbatur*, Swedish, grade *magna cum laude approbatur*.

**30.5.1998 Comprehensive school**

### Language skills

- Finnish and English: fluent spoken and written,
- Swedish: fair official skills.

### Work history

#### **Research**

See [list of publications](#).

### **Teaching**

#### **11.3.2013 – 15.5.2013**

Lectures (4 h) and assignments (16 h), computer graphics course, advanced level course at the Department of Mathematical Information Technology, University of Jyväskylä

#### **12.3.2012 – 28.5.2012**

Assignments (8 h), computer graphics course, advanced level course at the Department of Mathematical Information Technology, University of Jyväskylä

#### **18.1.2005 – 28.4.2005**

Lectures (10 h) and assignments (24 h), computer graphics course, advanced level course at the Department of Mathematical Information Technology, University of Jyväskylä

### **Full time contracts**

**1.4.2014 –** Software developer, Qvantel Finland Oy.

**28.10.2010 – 31.3.2014** Postdoctoral researcher at the Department of Mathematical Information Technology, University of Jyväskylä

**1.5.2006 – 27.10.2010** Doctoral student, research for Ph. D. thesis and post-graduate studies at the Department of Mathematical Information Technology, University of Jyväskylä

**16.5.2005 – 30.4.2006** Research assistant, Research for pro gradu thesis at the Department of Physics, University of Jyväskylä,

**1.7.2003 – 31.8.2003** Programming for Hurvana 4 computer game at Veikko Heinonen Ltd. (summer job).

### Programming and computer skills

#### • **Programming abilities:**

- Excellent, professional Python programming
- Experience in C++ and C programming

- **Web software development:** Professional experience using Django framework.
- **Some of my favourite Python techniques that I have used a lot (in random order):** SciPy, NumPy, matplotlib (graph plotting), Traits (by Enthought), Enaml (smart GUI technique, by Enthought), Cython, SQLAlchemy, OpenOpt, Web.py, FeniCS (FEM simul. software), IPython (+parallel), Pickle, threading, virtualenv
- **I am using these techniques/software/services routinely:** Git, Github, Bitbucket, Stack Exchange, L<sup>A</sup>T<sub>E</sub>X, LuaL<sup>A</sup>T<sub>E</sub>X, LyX, Paraview
- **Scientific computing skills:** Physics simulations with Finite Element method (FEM), Optimization methods (single-objective, multi-objective), 3D graphics, visualization techniques.
- **Command-line Linux computing:** Shell programming/scripting, web services, virtual computing etc. Especially on Debian/Ubuntu environment.

## Foreign visits

**20.4.2009 – 19.5.2009**

1 month in Stanford University, Stanford, CA, USA

**3.11.2007 – 2.12.2007**

2 weeks in North Carolina State University, Raleigh, NC, USA,

2 weeks in Stanford University, Stanford, CA, USA

## Grants

**9.5.2011**

Post-doctoral research grant for period 1.9.2011-31.8.2014, Academy of Finland (grant #250979)

**27.4.2007**

Grant for traveling (4000 euros), Emil Aaltonen säätiö