

PhD candidate | scientific computing ninja | open source developer |
always learning more | true nerd |
Espoo, Uusimaa, Finland

Summary

My attitude is best summarized by the following Maya Angelou's quote:

My mission in life is not merely to survive, but to thrive; and to do so with some passion, some compassion, some humour and some style.

If you still want more details:

"Almost done" PhD student in computer science. My research interests lie in scientific computing and computational mathematics in a full stack approach, from high level modeling to low level arithmetic implementation details. I can turn abstract thinking into efficient code... fast (as in, my code is fast and I'm fast at writing it).

I am passionate about turning maths into efficient working code. Some buzz words I've worked with include finite element analysis, computational algebraic geometry (especially for developing efficient polynomial equations solvers), positioning algorithms and interval methods.

I have experience with Julia, Matlab, Chapel, C, C++ and Python. Sometimes I also like to toy with Haskell.

I am also passionate about open source, I am developer of a few open source projects, maybe IntervalLinearAlgebra.jl, a Julia package for numerical linear algebra with interval arithmetic, is my best show-off example. I'm also heavily involved in the development and maintenance of other interval methods related packages in the JuliaIntervals organization.

I am self-motivated, reliable and independent worker who is not afraid of taking initiative, but I am also a team player, always happy

Top Skills

Julia (Programming Language)

Software Development

Machine Learning

Languages

Finnish (Full Professional) Italian
(Native or Bilingual) German
(Elementary)

English (Full Professional) French
(Limited Working)

Honors-Awards

Nokia Scholarship Encouragement
grant

to help and collaborate with others. During my PhD, I also worked as project manager in our research project, which enhanced my leadership and management skills.

I am substance oriented, I like to get into technical details and I enjoy live-coding prototypes on the fly to express my ideas and show how I would do something. I can still strip the technical implementation details to present my work in an engaging understandable way to general audience.

I am always interested in expanding my network and collaborate with cool people on cool stuff. If you would like to get in touch to discuss job opportunities / collaborations, do not hesitate to shoot me an email.

Experience

PlantingSpace

Julia Software Developer, Symbolic Computing Researcher
September 2022 - Present (1 year 10 months)

Julia Programming, symbolic manipulation, automated reasoning and other nerdy cool stuff to develop next generation AI.

University of Vaasa

Project Researcher
January 2020 - Present (4 years 6 months)

Research for my doctoral dissertation. Focused on computational methods for positioning.

Teaching graduate level courses and supervising one master thesis.

Project manager in a research project. The project is a joint collaboration of 3 universities

and one research institute. I organize and lead meetings, plan actions to ensure the project

goals are met, help people when they get stuck and coordinate research activities in my

university team (8 researchers).

Aalto University

5 years 1 month

Visiting Researcher

January 2020 - Present (4 years 6 months)

For my doctoral research I am also affiliated with Aalto University, where I am physically.

Thesis Worker

June 2019 - December 2019 (7 months)

Master thesis worker. My thesis deals with image-based localization, i.e. estimating camera position and orientation from taken pictures. The focus of my thesis is on modelling uncertainty in image-based localization and improving algorithms robustness.

Google Summer of Code

Julia developer

May 2022 - September 2022 (5 months)

contributed to JuliaReach organization. Implemented numerical-symbolic state-of-the-art algorithms for set manipulation and reachability algorithms.

Google Summer of Code

Julia developer

May 2021 - August 2021 (4 months)

I developed `IntervallLinearAlgebra.jl` a package to perform numerical linear algebra using interval arithmetic.

The Julia Language

Julia Season of Docs

October 2020 - March 2021 (6 months)

Developed a webpage containing documentation and learning materials for Julia packages related to interval arithmetic.

Lund University

Visiting Researcher

March 2020 - April 2020 (2 months)

Lund, Skane County, Sweden

developing numerical methods for sensor networks self-calibration.

Tampere University

Research Assistant

December 2018 - December 2019 (1 year 1 month)

Tampere Area, Finland

From May 2019 to December 2019: visiting master thesis worker at Aalto university.

From December 2018 to May 2019: Gpu programming for image denoising.

Tampere University of Technology

Research Assistant

May 2017 - December 2018 (1 year 8 months)

Tampere, Finland

- Numerical methods for heat transfer problems in superconducting cables.

- Teaching Assistant in basic courses in electrical engineering (circuit analysis and linear systems). I helped students during exercise sessions and showed model solutions. Occasionally I also graded exercises. I developed and maintained automatically graded exercises on the course website.

McDonald's Finland

Employee

October 2015 - April 2017 (1 year 7 months)

Tampere

Tampereen Klassillinen lukio

Italian Teacher

August 2015 - September 2015 (2 months)

Tampere

I taught a short Italian course to students going to visit an Italian school.

My responsibilities included preparing lessons and the materials needed and of course giving the lessons

Education

University of Vaasa

Doctor of Science (Technology) - D.Sc. (Tech.), Computer Science · (2020 - 2023)

Tampere University of Technology

Master of Science - MS, Electrical and Electronics Engineering, 151 ECTS,
GPA: 4.91/5 · (2018 - 2019)

Tampere University of Technology

Bachelor of Science - BS, Electrical and Electronics Engineering, 188
ECTS · (2015 - 2018)

Liceo Scientifico G.Galilei

Diploma di Liceo Scientifico, Maths and sciences · (2010 - 2015)

Tampereen Klassillinen Lukio

ylioppilas, Maths, Chemistry, French · (2013 - 2014)