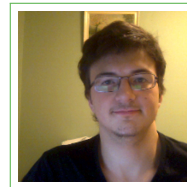# Torsten Gustafsson

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About Torsten

Torsten is a passionate programmer who loves to learn new things. He considers concepts such as code quality and thorough testing of systems as important parts of any project. Major areas of interest are: Graphics programming, system development, artificial intelligence, image enhancement, continuous integration, and pretty much anything software-related.

Personal website: *torstengustafsson.github.io*

Experience

2018-present — **Consultant**, *ÅF*, Linköping.
I am currently working for ÅF as a consultant software developer at Contextvision in Linköping. I work in a small team tasked with implementing the software for their new product Altumira, which is an X-Ray image enhancement program. A heavy focus has been on **optimization** of the various algorithms used, via CPU (**C, C++**) and GPU (**CUDA, D3D, OpenCL**) where applicable. Since we lacked an official Dev-ops engineer, it fell mainly to me to focus on the CI tasks necessary for the testing of the application. We have been using **git/svn** together with **Jira/Bitbucket/Jenkins** for code development, while integration testing have been done mainly via **python** scripting.

2017-2018 — **Consultant**, *HiQ Ace*, Norrköping.
I was working as a consultant for HiQ at Ericsson in Linköping. I worked in a team of experienced Ericsson developers in creating the backend software for their 5G network stations. Some of my responsibilities there included: planning and implementing the code architecture, testing on multiple levels (unit testing, suite testing, multi-component testing). I worked mainly in **C++** for the production code, and **Erlang** for the multi-component testing environment. Thorough code review was used for every change via **Git and Gerrit**.

Education

2012–2017 — **Master's degree**, *Media Technology*, Linköping University, *Norrköping*.
Media Technology have a wide focus within computer software. Some of the defining areas is Computer Visualisation, Computer Vision, Computer Graphics, and Image Processing.

2009–2011 — **High School**, *IT - Networking*, Lindengymnasiet, *Katrineholm*.

Master Thesis

Title — *Concepts of Hybrid Data Rendering*

Supervisors — Ingrid Hotz, Rickard Englund

Description — The thesis discuss methods of rendering multiple data sets of different formats (e.g. **volumes** or **meshes**) together in a single rendering window. Focus was on **optimizing** a combined rendering method using an A-buffer.

Two results was gained. The fastest method used a fixed 3D texture, which had the problem of requiring a fixed maximum depth. Another method using linked lists of fragment pages greatly reduced memory usage for most scenes, while reducing frame-rate by about 20% compared to the first method.

Freelancing Work

2016-2017   **App developer**, *Aimroc Invent AB*, Norrköping.

I developed a prototype for a mobile app for **Android and iOS** part-time in between my studies. It was developed in **C#** using **Xamarin.Forms**, which allowed an Android and an iOS version of the app to be released simultaneously. The app handles a database of products and user accounts using **MySQL**.

Volunteering Work

2014–2016   **Accountant**, *Pub Vattentornet*, Norrköping, www.vattentor.net.

worked as accountant for a student-driven pub.

2015–2016   **Accountant**, *Pekings Akademiska Friluftsförening*, Norrköping, paff.nu.

I worked as accountant for a student-driven association focused on outdoor experiences.

Skills

Programmming Languages	C++, C, C#, Python, Javascript, Erlang
Computer Skills	System development, Data driven development, Continous integration, SIMD, GPU programming
Development Tools	Git, SVN, Gerrit, Jenkins, Jira, GDB, Valgrind, Visual Studio, Eclipse, Doxygen
Operating Systems	Windows and Linux
Agile methods	Scrum

Interests

Coding	I consider programming my hobby as well as my profession. I usually manage to come up with some new projects to work on in my spare time.
Socializing	I enjoy going out for a beer every once in a while.
Exercise	I try to stay in form by running and going to the gym at times.

Languages

Swedish	Fluent
English	Fluent