




Anton Ekblad

Computer Scientist and
Software Developer

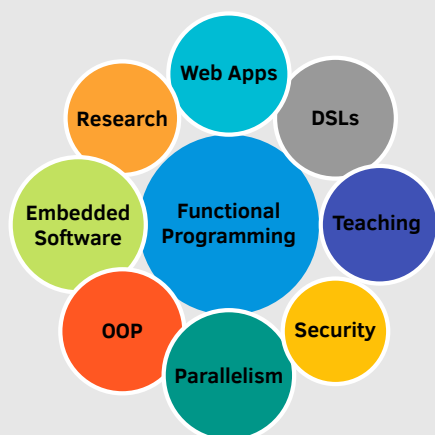
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Skills

Overview



Programming

Newbie \longrightarrow Expert

Haskell • C • JS

Java • Erlang • SQL • C++

Python • C# • Bash • PHP

Agda • Promela • VHDL

Spoken Languages

Swedish (native) • English (fluent)
Japanese (JLPT N2) • German (basic)

Projects

github.com/valderman

Haste – the most performant
Haskell-to-JS compiler on Earth

Haste.App – distributed, heterogeneous
Haskell web framework

Selda – cross-backend database query
language

Aplite – high-performance ASM.js DSL
with automatic performance tuning

Shellmate – cross-platform shell
scripting in Haskell

Education

2013 – 2018	PhD., Functional Programming	Chalmers University of Technology ^{SE}
2011 – 2012	MSc., Computer Science	Gothenburg University ^{SE}
2008 – 2011	BSc., Computer Science	Gothenburg University ^{SE}
2008	Japanese Studies	Kansai Gaidai University ^{JP}
2005 – 2007	Japanese Studies	Universities of Linköping, Lund, Gothenburg ^{SE}

Experience

Apr. 2013 – **PhD Candidate** Chalmers University of Technology
Mar. 2018 Doing research on functional programming, languages, compilers, parallelism and DSLs. Teaching duties involve supervising theses, setting and grading exams, developing, supervising and grading lab assignments, and planning and giving lectures; on the BSc. as well as the MSc. levels in the areas of functional programming, object oriented programming, algorithms, data structures, concurrency, parallelism and compiler construction. As my research leans heavily towards the applied rather than the theoretical, a significant portion of my time goes into software development and prototyping. The diverse needs of my teaching also has me spending time on auxiliary activities such as scheduling, web design, systems administration, and the development of tools to supplement labs and exercises.

Aug. 2014 – **Research Intern** Microsoft Research
Oct. 2014 Hacking on the compiler for the Ziria programming language. Together with Microsoft researchers, I worked on a pipeline parallel execution model and compilation scheme for Ziria. Ziria is a domain-specific language for implementing software-defined radio applications, with stringent performance and latency requirements.

Oct. 2012 – **Full Stack Developer** Scrive
Mar. 2013 As a developer at Scrive, a vendor of e-signing solutions, my responsibilities included implementing new features, fixing bugs, testing (automated and otherwise) the product, and generally assisting designers and business folk with whatever changes they needed done to the product. In addition, I did documentation of our web API, translations of various texts, and took part in figuring out, designing and implementing features and campaigns aimed directly at enlarging and activating our user base. I was briefly head of QA, before leaving to pursue my PhD.

Aug. 2012 – **Software Developer** Auto-Maskin
Oct. 2012 I worked on marine engine control systems, with responsibilities ranging from debugging and improving the GUI and web interface of our products to designing and implementing features for our less powerful systems running on microcontrollers, and everything in between. Our Linux-based product was developed mainly in C and C++, using Qt for the graphical bits. I had the primary responsibility for a microcontroller-based safety-related unit, which we took over from another vendor. I was in charge of implementing a slew of new features, documenting the existing code and generally beating this product into shape. The project was completed in less than half the allotted time.

- Jun. 2011 – **Software QA Engineer** Academic Work / Collector
- Aug. 2011 I was brought in as a consultant for a financial firm that needed someone to thoroughly test their main accounting application and related web services. The work included drawing up a specification to test against (since there were none to start with), constructing and executing functionality tests, automating what tests could be automated (which ended up with me implementing a subset of the famous QuickCheck testing package, in a strange JavaScript dialect used by the customer's testing tools, to facilitate property-based testing), constructing and executing load tests, analyzing bottlenecks, testing for security vulnerabilities, and so on.
- Aug. 2009 **Web Developer** Academic Work / +8
- I was brought in as a consultant to design and implement features for, debug, clean up the code of and generally fix a warehouse management web application for a local scaffoldings manufacturer. Said application was started by a previous consultant who left the company in the middle of the project. The work was highly independent as the customer had no other technical staff or consultants. The product was implemented using PHP, JavaScript and MySQL.

Publications

Peer Reviewed

- Anton Ekblad. 2017. **A meta-EDSL for distributed web applications.** In Proceedings of the 10th ACM SIGPLAN International Symposium on Haskell (Haskell 2017). ACM, New York, NY, USA, 75-85.
- Anton Ekblad. 2016. **High-performance client-side web applications through Haskell EDSLs.** In Proceedings of the 9th International Symposium on Haskell (Haskell 2016). ACM, New York, NY, USA, 62-73.
- Anton Ekblad. 2015. **Foreign exchange at low, low rates – A lightweight FFI for web-targeting Haskell dialects.** In Proceedings of the 27th Symposium on the Implementation and Application of Functional Programming Languages (IFL '15). ACM, New York, NY, USA, Article 2, 13 pages.
- Anton Ekblad and Koen Claessen. 2014. **A seamless, client-centric programming model for type safe web applications.** In Proceedings of the 2014 ACM SIGPLAN symposium on Haskell (Haskell '14). ACM, New York, NY, USA, 79-89.

Non-Peer Reviewed

- Anton Ekblad. 2015. **A distributed Haskell for the modern web.** Licentiate Thesis, Chalmers University of Technology.
- Anton Ekblad. 2012. **Towards a declarative web.** Master of Science Thesis, University of Gothenburg.
- Anton Ekblad. 2011. **A language for functional web programming.** Bachelor of Science Thesis, University of Gothenburg.