

Erik Ihrén

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EDUCATION

Bachelor's Degree **Royal Institute of Technology, Sweden**
Computer Science Expected graduation: October 2015
Major GPA: 3.92
Teaching Assistant, August 2014 - December 2014

WORK EXPERIENCE

Spotify Software Developer, Sweden, June 2015 - August 2015

- Created a new message hub for Spotify's data infrastructure, handling billions of messages per hour using Crunch and Hadoop.
- Reduced execution time per hour by 85%, taking down the average time of one run from 1.5 hours to 15 minutes.

Ericsson Software Developer, Sweden, June 2014 - December 2014

- Wrote Python scripts to automatically extract dependencies between the huge number of Ericsson projects.
- This removed the need to rebuild and test everything for every commit, which greatly increased performance in their continuous integration environment.

Domain Name Services Summer Intern, South Africa, May 2013 - August 2013

- Implemented an asset registry system in their Django admin interface.
- Worked on automating several administrative applications and scripts.
- Attended the ICANN and AFRINIC conferences.

Netnod Summer Intern, Sweden, June 2011 - August 2011 and June 2012 - August 2012

- Extended Django's admin interface to pull arbitrary data from models.
- Used the Javascript library Flot to visualize the data compared to other models.

PROJECTS

Full portfolio can be found on my personal site: <http://www.nada.kth.se/~eihren/>

SuperWebRecorder Created javascript library to record users' interactions with a site for usability purposes.

- Worked as the Project Manager, leading 8 other people while simultaneously participating heavily in programming.
- Serialized webpage DOM state as a JSON object and sent to database to be replayed for the site owner later on.

Cruiser Command Spent three years continuously developing my own mod for Starcraft 2, played by thousands.

- Average rating of over 4.8/5 out of over 2000 reviews.
- Implementing advanced AI for a complex team-based strategy game.
- Working and fixing bugs in a code base with over 25,000 lines of my own custom code.

Kartobot Built and programmed a mapping robot with two friends. Uses two rotating ultrasonic sensors to draw a realtime map of surrounding area.

- Implemented A* pathfinding algorithm in C
- Optimized algorithm for extreme memory constraints (10kB)
- Modified algorithm to use binary heaps to increase performance with 100x.

COMPUTER SKILLS

Languages I'm experienced with Python, Java, C# and C/C++. I'm also familiar with a great deal of other languages like Lisp, Go, Haskell, Prolog, Ruby, Swift and Javascript.

Tools/Frameworks I have experience with following tools and frameworks: Git, CAD, Django, MySQL, HTML/CSS, Bootstrap, AngularJS, Docker, Hadoop, Crunch and LaTeX.

PRIZES AND AWARDS

- Finalist in Swedish national programming competition at high school level.
- First place in Linköping University's case competition 2011.
- Second place in Spotify's Hockey Programming Challenge.