# Johan Backman

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## **Education**

MSc Computer Science, Chalmers University of Technology

Aug 2016 - Aug 2018

BSc Software Engineering, Chalmers University of Technology

Aug 2012 - Jun 2015

### **Experience**

#### Software Engineer / AI Researcher, Bracket Computing

Dec 2017 -

- Reinforcement Learning research focused on autonomous cyber-threat response using Bayesian Attack Graphs formulated as a POMDP
- Developed FreeBSD kernel code in C, and user-space Python services that communicated with a Kubernetes-based control plane
- Debugged and improved Go code in micro-services on Kubernetes
- Maintaining an open source OpenAI environment for threat defense research. github.com/barreyo/gymthreat

### Software Engineering Intern, Bracket computing

Jun 2015 - Jun 2016

- Redesigned the whole Continuous Integration pipeline using Docker on Jenkins
- Built a testing framework in Python based on PyTest, that made it easy to write generic tests to test the product across AWS, GCE and on-premise VMWare
- Wrote end-to-end integration and performance tests
- Collaborated with the development team on test plans and requirements

### Software Engineer, Freelance

Apr 2015 - Jul 2015

- Designed and developed the embedded software for a low-cost road sign that shows the current speed of passing vehicles, bikers and pedestrians using radar technology
- Mocked the hardware features of the custom-designed hardware to create regression tests

#### Vice Business Area Manager, Chalmers Teknologkonsulter

Jan 2014 - Jun 2014

- Managed 18 software engineers
- Mainly in charge of sales, strategic development and training
- Increased the time consultants were assigned to billable projects, which lead to an increased business area revenue by 80%

#### Software Engineer Consultant, Chalmers Teknologkonsulter

Sep 2013 - Feb 2015

- Embedded development in C on custom-designed BLE hardware
- Developed the core technology, OTA updates over Bluetooth, charging and battery management
- Developed an Android application to debug Bluetooth connections

# **Technologies**

Languages: Python, Haskell, C, Erlang, Rust, Go, Java, GLSL

Other: Docker, Git, TensorFlow, AWS, Bash, GNUMake, GCE, OpenGL, Android