

Johan Backman

backman93@gmail.com (+1) 415 909 82 68
2897 Cesar Chavez St San Francisco, 94110

 [linkedin.com/in/backmanjohan](https://www.linkedin.com/in/backmanjohan)

 github.com/barreyo

Education

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| MSc Computer Science, Chalmers University of Technology | Aug 2016 - Aug 2018 |
| BSc Software Engineering, Chalmers University of Technology | Aug 2012 - Jun 2015 |

Experience

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| Software Engineer / AI Researcher, Bracket Computing | Dec 2017 - |
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- Reinforcement Learning research focused on autonomous cyber-threat response using Bayesian Attack Graphs formulated as a Partially Observable Markov Decision Process (POMDP)
- Developed FreeBSD kernel code in C, and user-space Python services that communicated with a Kubernetes-managed control plane written in Go, to collect and process large amounts of telemetry data.
- Improved and debugged micro-services implemented in Go and managed in Kubernetes
- Published an open source OpenAI environment for threat defense research (github.com/barreyo/gym-threat)

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| Software Engineering Intern, Bracket computing | Jun 2015 - Jun 2016 |
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- Designed and implemented the build and CI pipeline using Docker and Jenkins. Which simplified maintenance and improved consistency.
- Built a testing framework in Python based on PyTest; that made it easy to write generic tests across AWS, GCE and on-premise VMWare. The framework was used by the whole organization of about 30 engineers.
- Wrote end-to-end integration and performance tests

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| Software Engineer, Freelance | Apr 2015 - Jul 2015 |
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- 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

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| Vice Business Area Manager, Chalmers Teknologkonsulter | Jan 2014 - Jun 2014 |
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- Managed 18 software engineers in sales and project work that ranged from mobile app development to embedded systems
- Increased the time consultants were assigned to billable projects, which lead to an increased business area revenue by 80%

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| Software Engineer Consultant, Chalmers Teknologkonsulter | Sep 2013 - Feb 2015 |
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- Embedded development in C on custom-designed BLE hardware
- Developed 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