

**Johan Sjölen** johan.borglin.sjolen@gmail.com  
Stockholm, Sweden

## Education

- **Kungliga tekniska högskolan** Stockholm, Sweden  
*Master of Science in Engineering (MSc) - Computer Science and Engineering 2013-2014, 2015-2020*

## Work Experience

- **Loredge** Stockholm, Sweden  
*Software developer 2017-2020*
  - I developed both on the front-end using Electron/JavaScript/TypeScript and on the backend using Node/TypeScript. I utilised gRPC for communication between FE and BE and deployed to Google Cloud Platform using Docker containers.
- **Loredge** Stockholm, Sweden  
*Summer intern 2017*
  - I did front-end development in C++ with the Qt5 framework.
- **Järfälla kommun** Stockholm, Sweden  
*Student assistant 2015-2017*
  - Assist special needs students, practicing "låaffektivt bemötande"

## University Projects

- **MSc thesis** Stockholm, Sweden  
*Supervisor: Musard Balliu, examiner: Roberto Guanciale 2020, Spring*
  - Title: Relational Symbolic Execution in WebAssembly. Developed interpreter for WebAssembly capable of verifying relational security properties such as non-interference for WebAssembly programs.
- **BSc thesis** Stockholm, Sweden  
*Supervisor: Jana Tumova 2018, Spring*
  - Title: Probabilistic Least-violating Control Strategy Synthesis with Safety. Developed solution for adhering to safety rules expressed in co-safe LTL as closely as possible in a probabilistic setting.

## Skills

**Programming Languages (descending in experience):** JavaScript, TypeScript, Java, Scala, Common Lisp, Haskell, C++, C, Prolog

**Operating Systems:** Linux

**Tools and technologies (in no particular order):** git, gRPC, PostgreSQL, Google Cloud Engine, Docker, Trello, Qt5/QtQuick, Electron

**Achievements:** Claimed bug bounty from PubNub for discovering an IDOR vulnerability.

**Miscellaneous:** Strong verbal and written communication skills. Experience working in teams in an agile manner, including code reviewing, daily standups, setting up sprints, and pair programming.

## Language

- Swedish - native
- English - fluent

## Interests

**Academic:** Programming language theory and compilers, formal methods, security, and distributed systems

**Sports:** Powerlifting (active member of a powerlifting club)

**Miscellaneous:** History, cooking

*References are available upon request.*