

# Max Knutsen

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work **Facebook** — SWE Intern Summer 2016

I'm not sure what I'll be working on yet, but I'm excited!

**Cougaar Software** — SWE Intern 2014-2016

Implemented a health monitoring system in a distributed environment.  
Accompanying GUI was written with AngularJS and Vis.js

Helped scale Cougaar's technologies to embedded systems and used those technologies to design and implement a distributed robotics framework.

Built a robot that used the distributed framework to maintain connected water tanks. Used Raspberry Pis to task Arduinos with custom firmware.

projects **Distributed Systems with Hadoop** Spring 2016

Used Avro to encode Twitter data and used Kafka to move it between points on the data pipeline. Along the pipeline, the data is fed through Storm and Pig and stored in HDFS and Accumulo.

**Checkers AI** Fall 2015

Worked on a small team to implement checkers AI that used the minimax theorem with alpha-beta pruning in Java with Swing.

**FloatBot** Fall 2015

Collaborated with a team consisting of hardware and software specialists to modify and task an AR.Drone 2.0 to make a water landing near a brightly colored object using ROS and OpenCV.

**Real Time Artificial Intelligence** Spring 2015

Developed a two dimensional game with an algorithm that used the player's recent movements to construct a decision tree and then react using modular action sequences.

school **University of Maryland, Baltimore County** Winter 2016

BS in Computer Science with an emphasis on artificial intelligence, robotics and big data.