# Max Knutsen

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#### work

## Microsoft — UEFI Firmware Engineer

Aug 2017 -

Developed unit tests to verify and maintain new suite of memory protections

Designed and implemented update scenarios for UEFI device drivers

Provided tools to peer into current state of protections in SMM memory space

# Microsoft — Hyper-V Software Engineer

Feb - Aug 2017

Built internal tool to reorganize a VM server memory layout at runtime Refactored attack surface of a driver to create a clear layer of input validation

## Facebook — BLOB Storage Intern

Summer 2016

Cut Namenode start by 99% by reading from cache, improving emergency response Created testing environment for hot storage to find error handling problems

## Cougaar Software — Robotics R&D Intern

2014 - 2016

Created distributed health monitoring system designed for modular hardware systems Used Cougaar's framework to design and construct a distributed robotics framework Built a robot that balanced water levels in response to introduced leaks

#### projects

# Distributed Systems with Hadoop

Spring 2016

Used Avro, Kafka, Storm, Redis to read and categorize data from Twitter garden hose

Fall 2015 **FloatBot** 

Used ROS, Open CV, AR.Drone to build a drone that would save a drowning person

## Real Time Artificial Intelligence

Spring 2015

Made a game with AI that reacts to movement using modular action sequences

#### school

# University of Maryland, Baltimore County

Winter 2016

BS in Computer Science with an emphasis on systems with 3.3 GPA