

# Max Knutsen

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work **Microsoft** — UEFI Firmware Engineer Aug 2017 -

Designed and implemented driver update scenarios to improve serviceability

Provided tools to analyze and verify the state of memory protections in SMM

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

**Microsoft** — Hyper-V Software Engineer Feb - Aug 2017

Built an internal tool to reorganize a host system's memory layout at runtime

Refactored the attack surface of a driver to create a clear layer of input validation

**Facebook** — BLOB Storage Intern May - Aug 2016

Cut server start time by 99% by reading from cache, improving emergency response

Created a testing environment to expose recovery issues in the distributed network

**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 maintains a specified water level when a leak is introduced

projects **Distributed Systems with Hadoop** 2016

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

**FloatBot** 2015

Used ROS and Open CV to task an AR.Drone to find and save a drowning person

**Real Time Artificial Intelligence** 2015

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

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

Received a BS in Computer Science a 3.3 GPA