

# Max Knutsen

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## Job Skills

programming languages

C, C++, Python, Java

experience areas

UEFI app/driver development

windows driver development

distributed system engineering

version control

git, mercurial, subversion, cvs

## Education

Bachelors of Science,  
Computer Science

University of Maryland,

Baltimore County

GPA 3.3

Coursework

Operating Systems

Artificial Intelligence

Distributed Systems

Robotics

Databases

Graph Theory

## Leadership

Retreiver Robotics

Founding member (2013)

Lead programmer (2013-15)

Treasurer (2014)

Programming mentor (2013-16)

## Experience

Software Engineer - Core UEFI

Microsoft Redmond, WA | Aug, 2017 - Present

Wrote SMM driver, UEFI app, and runtime Python application to facilitate open source investigation of new feature.

Software Engineer - Hyper-V

Microsoft Redmond, WA | Feb - Aug 2017

Exposed memory management features to server engineers through new driver level API and accompanying Python script.

Software Engineer Intern - Distributed Storage

Facebook Menlo Park, CA | May - Aug 2016

Implemented caching mechanism to avoid initial twenty minute setup, increasing the availability of the Namenode service.

Architected test layer to distributed server to test fallback in a production environment, which was used to discover errors in redundancy systems.

Jr. Software Engineer Intern - Robotics R&D

Cougaar Software Tysons Corner, VA | 2014 - 2016

Designed goal-oriented distributed robotics framework.

Built robot which could balance water tanks with an introduced leak.

## Projects

Distributed Systems

Java | February - May 2016

Used Twitter garden hose with Avro, Kafka, Storm, Redis to track trending hashtags in real time.

Water Rescue Robot

Python | March - May 2016

Used Robot Operating System (ROS) to task modified water-resistant AR.Drone to land near objects in the water.

Real Time Video Game AI

Java | May 2016

Built artificial intelligence that used modular action sequences to respond to stimuli in real time.