# Jacob Hegna

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### **EDUCATION**

Bachelor of Science, Computer Science Bachelor of Science, Mathematics

TZO

University of Kansas (Honors College), Lawrence, KS

Expected graduation: May 2019

Black-Babcock Mathematics Scholar Dean's List: Fall 2015 to Spring 2017

GPA: 3.99

#### **EXPERIENCE**

Garmin Software Engineering Intern

May 2017 - August 2017

August 2015 - Present

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- Designed and implemented a general-purpose logging framework for use on multiple devices.
- Managed requirement analysis between multiple teams (PND, WiFi/networking, security, and more).
- Coordinated development on the logging framework through Git, Gerrit, and JIRA.

Undergraduate Researcher

May 2016 - September 2016

- Developed a static branch prediction algorithm for disassembled executables, with over 70% accuracy for certain heuristics.
- Implemented the algorithm in C++, while having to parse x86 assembly.
- Worked alongside multiple PhD candidates to achieve development goals.
- Managed data sets of 10+ gigabytes.
- Maintained proper version control via Git.

# PERSONAL PROJECTS

Assembler/disassembler for the Intel 8080 microprocessor

- Developed a platform able to handle and manipulate well-formed Intel 8080 binaries.
- Maintained proper version control via Git.
- Leveraged continuous integration via Travis CI to ensure build stability.

## **SKILLS**

Technology: GDB, Git, Gerrit, JIRA, Linux, Node.js, LATEX

Communication & Teamwork: Member of the KU Debate Team, quarterfinalist at the National Debate Tournament, invitee to the Dartmouth Round Robin, ranked in the top-10 collegiate debate partnerships nationally.