

# JOHN W HODSON

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## EXPERIENCE

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**Microsoft, Redmond, WA**

**May 2019 to August 2019**

*Software Engineer Intern*

- Developed in the C# and .NET environment on [Azure's Active Directory](#), a cloud-based service responsible for managing user identities, access management, and devices.
- Solved a major customer complaint regarding the loss of private BitLocker key data by refactoring API calls and architecting an additional external storage model to decouple the lifetime of two data objects.
- Changed the intrinsic way that the Microsoft Mezzo storage service operates by altering their data synchronization service to sync data objects with a one-to-many instead of a one-to-one relationship.

**Ultimate Software, Weston, FL**

**May 2018 to August 2018**

*Software Engineer Intern*

- Developed and tested in C# within the ASP.NET framework in a Kanban-Agile environment on [UTE \(UltiPro Tax Engine\)](#), responsible for the collection of over 13,000 tax codes.
- Implemented Grafana dashboard to diagnose performance issues with generation and calculation of tax forms in order to better serve users.

## EDUCATION

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**University of Florida, Gainesville, FL**

**GPA: 3.96/4.0**

**August 2016 to May 2020**

*Bachelor of Science in Computer Engineering*

- Coursework - Algorithm Design, Programming Language Concepts, Object Oriented Programming, Data Structures & Algorithms, Computer System Design, Database Systems
- Honors - CISE Scholarship, ECE Scholarship (x2), [College of Engineering Scholarship for Engineering Leadership](#), College of Engineering Dean's List (x4), [Anderson Scholar \(top 1% academically, class of 2020\)](#), [Computer E Award \(most prestigious award granted by ECE department\)](#)

## VOLUNTEER EXPERIENCE

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**Google igniteCS, Gainesville, FL**

**January 2017 to May 2018**

*Program Lead (formerly Logistics Director)*

- Communicated directly with Google and make key decisions on critical aspects of [the program](#).
- Managed scheduling between Oak View Middle School and our Google igniteCS team of over 30 mentors.
- Aided students in a class of ~20 working with VEX iQ Robotics, providing guidance in basic programming principles and hardware implementation as a mentor.

**Association of Computer Engineers (ACE), Gainesville, FL**

**January 2018 to January 2019**

*External Outreach Chair*

- Planned and implemented biweekly outreach events for [a club](#) with a reach of nearly 1000 members.
- One of 11 leaders responsible for the management/growth of ACE via decision making on key issues.

## PROJECTS

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**C-Like Language to LLVM Compiler** Gainesville, FL

**April 2019 to May 2019**

- [Built a compiler](#) in OCaml for GNU bc, the popular Unix calculator language, using the LR(1) parser generator Menhir and OCaml's LLVM library to generate LLVM IR code.
- Includes functions, if/else statements, and while/for loops - all structured in an abstract syntax tree.

## TECHNICAL SKILLS AND INTERESTS

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**Back-End Lang.**

C#, Java, Python, SQL, C++

**Miscellaneous Lang.**

OCaml, ANTLR, MATLAB, C, VHDL, Assembly (AVR, MIPS, ARM)

**Tools & Frameworks**

Git, .NET, Django

**Interests**

Spearfishing, Physical Fitness, Compilers