JOHN W HODSON

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EXPERIENCE

Microsoft, Redmond, WA

May 2019 to August 2019

Software Engineer Intern

- Developed using C# and .NET on <u>Azure Active Directory</u>, 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 cache service operated by altering their data syncing 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 using C# and ASP.NET on <u>UTE (UltiPro Tax Engine)</u>, an internal tax filing service 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

University of Florida, Gainesville, FL

GPA: 3.96/4.0

August 2016 to May 2020

Bachelor of Science in Computer Engineering

- Coursework Algorithm Design, Object Oriented Programming, Computer System Design, Operating Systems, Microprocessor Applications II (RTOS), Programming Language Concepts, Database Systems
- Honors Computer E Award (most prestigious academic award granted by ECE department), Anderson Scholar (top 1% academically, class of 2020), College of Engineering Scholarship for Engineering Leadership, CISE Scholarship, ECE Scholarship (x2), College of Engineering Dean's List (x4)

VOLUNTEER EXPERIENCE

Google igniteCS, Gainesville, FL

January 2017 to May 2018

Program Lead (formerly Logistics Director)

- Communicated directly with Google and made 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 \sim 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

C-Like Language to LLVM Compiler, Gainesville, FL

April 2019 to May 2019

- <u>Built a compiler</u> 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

Architecture & Systems Web Development, RESTful APIs, Microservices, Embedded Systems

Languages C#, Python, Java, C, Assembly (AVR, ARM), OCaml, C++

Frameworks & Tools

NET, Django, Hugo, PyTorch, Bash, Git

Data Management Microsoft SQL Server, MongoDB

Containers & Cloud

Docker, Azure