Jack **Whitesell**

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Education

University of Illinois at Urbana-Champaign
January 2020 - May 2022 (Expected)

MASTER OF SCIENCE IN COMPUTER SCIENCE
Current GPA: 4.00/4.00

Key Coursework: Parallel Programming, Data Mining, Programming Languages & Compilers

University of Washington
September 2013 - June 2017

BACHELOR OF SCIENCE IN INFORMATICS
*Honors: Cum Laude | **Cumulative GPA:** 3.73/4.00*

Key Coursework: Android Development, Client/Server Side Web Development,
Data Structures & Algorithms, Web Application Security, Relational Database Management Systems

Projects

MMO Goal Tracker
PERSONAL
July 2020 – August 2020

- Created a desktop app where users can create and edit goals, and set timers for recurring events in an online video game
- Utilizes a **SQLite** database to allow for dependencies between goals, with checks and prepared statements to validate data
- Developed using **Electron**, **React**, **jQuery**, and **SQL**

Distributed Memory Histogram Sort
UIUC, PARALLEL PROGRAMMING
April 2020 – May 2020

- Implemented a histogram sorting algorithm that determines the best way to split up data between processors so that each processor has a near equal amount of elements in sorted order
- Developed with a focus on speed and efficiency using a mixture of MPI to split the task between multiple processors and OpenMP to further split up the task on each processor into multiple threads
- Programmed in **C++** using **OpenMP** and **MPI**

Custom WordPress Plugin Development
PERSONAL
January 2019 – March 2019

- Created a plugin for various functionality across an eCommerce website, such as browsing based on tags and recommendations
- Implemented with prepared statements and HTML escaping to prevent introducing any vulnerabilities to the site
- Developed for WordPress using **PHP**, **CSS**, and **Javascript**

StreamSurfer
UW, INFORMATICS CAPSTONE
January 2017 – May 2017

- An innovative search engine to find sources to stream movies and TV shows, with options to browse by categories, search for an entry, view details of the entry, and keep user accounts with custom lists
- Developed as a website with a responsive mobile view, as well as an Android app
- Collaborated with one other developer and two designers in an agile environment covering the software development life-cycle
- Developed using **C#** and **.NET Core** with an **MVC** design pattern, using **PostgreSQL** as the database management system, and the Guidebox API to collect information on entries, and **Java** for the Android app

CNN Wikipedia Search
UW, SERVER-SIDE DEVELOPMENT
April 2016 – June 2016

- A usable search engine for CNN articles with auto-complete suggestions appearing as a user types
- Utilized an Azure worker role to crawl the CNN articles and store them in Azure table storage, and a trie to store the auto-complete suggestions for fast lookup that appears as soon as a user types
- Developed using **C#** and **ASP.NET** with **Azure** web and worker roles, and **jQuery** AJAX calls to interact with the web role and display information

Extracurricular Activities

Anime Discovery Project at UW
PRESIDENT & INTERNET OFFICER
January 2015 - September 2017

- Developed a trivia website using **AngularJS** and Firebase that allows admins to ask questions to members with real-time results
- Created multiple Android applications for club administrative functions in **Java** with **SQLite** databases

Skills

Programming Skills	C++, C#, Java, Haskell, JavaScript, jQuery, HTML, CSS, React, SQL, NodeJS, Electron
Technical Knowledge	Cybersecurity, Databases, Parallel Programming
	Object Oriented Programming, Algorithms & Data Structures