

# SONJA LINTON

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## EDUCATION

**The Ohio State University (OSU)**, Columbus, OH  
Bachelor of Science | Computer Information Science  
Minors: Honors Math and Religious Studies

Expected Graduation: May 2022  
Overall GPA (4.0 Scale): 3.84

- Relevant coursework: Systems (Low-Level Programming, Operating Systems), Software (Components, Design and Development), Foundations (Discrete Structures, Algorithms), Linear Algebra, Intro to Probability and Statistics, Basics of Computing Science, Project Course: Game Design and Development

### Course Projects

Wrote air traffic control simulator in C including character-based graphical display

- Built up project to start with basic simulation, then added dynamic memory allocation, linked lists, and sequencers for startup and shutdown of simulation

Wrote generic linked list in C useable with any data type

- Using nodes with void pointers, implemented linked list that can grow to any size using dynamic memory allocation for nodes

Implemented first dungeon of original 1986 Legend of Zelda game in C# using MonoGame

- Designed inventory system and item pickup
- Designed data driven level loading from CSV files for each room of the dungeon
- Designed sprite factory and loading to basic sprite class
- Implemented enemy AI and movement for Keese, Stalfo, and Gel

Selected for Women in Engineering Learning Community for 2 years

- Courses in leadership and personal development, including meetings with academic and career advisors
- Networked and built community within engineering to retain women in STEM fields

## SKILLS

- Proficiency in C, C#, MATLAB, Assembly, VBA, PHP, CSS, HTML, SQL, Python, JavaScript, Swift, Bash, Java
- Proficiency in WordPress and Drupal site development, and custom plugin development
- Experience with version control, SVN and Git
- Proficiency in Microsoft Office Suite and Adobe Suite
- Experience in handling non-technical clients and project management
- Conversationally proficient in Spanish and German

## EXPERIENCE

**Systems 2** | Grader | OSU | Columbus, OH

August 2020 - Present

- Helped students understand and build billiards pool simulator.
- Furthered knowledge and understanding of C, prototyping, and Assembly coding

**Software Engineering Intern** | M.C. Dean | Tysons, VA

June 2019 – July 2020

- Summer internship was extended to continue part time during school year.
- Developed internal project management tool to streamline data and automate processes, estimated to save over \$1 million in the next two years.
- Designed relational database architecture and front-end forms for user interaction with tool
- Implemented Visual Basic for Applications code to manage data migration, exports, and automate server DNP address assignment.
- Tested fault and safety sequences at traction power substation for light rail transit system, including breakers, digital status display, and digital points.

**Student Developer** | Ohio Technology Consortium | Columbus, OH October 2018 – September 2019

- Maintained and updated 14 websites for OH-TECH and Ohio Department of Higher Education.
- Developed custom plugins using PHP and redesigned static sites using node.js and HTML.
- Developed testing program using backstop.js and bash scripting to systematically take screenshots to compare appearance of TEST to PROD sites for major site updates.

**Senior Technology Apprentice** | MAXX Potential | Richmond, VA January 2018 – August 2018

- Achieved Level 3 Apprenticeship in five months.
- Selective program that hires apprentices to be trained by technical advisors to work on contracted projects.
- Developed and designed custom WordPress plugin to create video and image galleries that includes functionality to reduce image quality for thumbnails and download analysis for high-resolution images. Similar plugin developed for custom pdf document galleries.
- Project management for content migration from HTML-based website to WordPress site.
- Designed and implemented logic for creating geofences, used in 37 iOS applications.
- Designed management portal for setting geofences of iOS app using Python, Flask API framework, and AJAX.
- Notification analytics and tracking for timed notifications to reduce geofence-triggered notification spam.
- Attended meetings with clients to communicate project progress.

## ACTIVITIES

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• Active member of Alpha Phi Omega, service fraternity at OSU	January 2020 – Present
• Active member and presenter for Richmond Chapter of Women Who Code	August 2017 – January 2020
• Outreach and Social Media Chair for OSU Rock Climbing Team	December 2018 – August 2019
• Robotics team management and outreach	September 2015 – June 2017