ALEXANDRA WONYU

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EDUCATION

Waverly, IA **Wartburg College** **May 2023**

Major: Computer Science, B.A. (*major GPA*: 3.98/4.0, *cumulative GPA*: 3.87/4.0)
Minor: Psychology **Honors:** Phi Eta Sigma, Psi Chi, National Society of Leadership and Success
Languages spoken: French *(native)*, Japanese, Korean *(fluent)*, Spanish, Mandarin *(intermediate)*

INTERNSHIP EXPERIENCE

Web Development Intern | Abundant | Remote **January 2022 - present**

- Contribute to the company's headless WordPress site by implementing UI/UX designs of web forms in React, and writing PHP plug-ins to register new REST routes and add server-side form validation
- Work remotely in a team of four at a pace of 5-10 hours a week and contributed to the launch of the company's new volunteer management platform
- **Technologies learned**: HTML, CSS, PHP, JavaScript, TypeScript, JSON, the WordPress REST API, JSX, React, GraphQL, SFTP, Postman, Webpack and WordPress plug-in development

TECHNOLOGY PROJECTS

Music Quiz Web App | Systems Design Course | Wartburg College **September - December 2022**

- Created a fully functional single-page web app in React: a music quiz game in which users can log into their Spotify account, choose any playlist and quiz themselves on its songs unlimitedly
- Successfully designed and implemented the app on my own for 10 hours a week over 13 weeks
- **Technologies used**: React.js for front-end, Express.js for OAuth, Spotify Web API for asynchronously fetching playlist and track data, Git for version control, Adobe XD for initial prototyping

Ray Tracing Engine | Computer Graphics Course | Wartburg College **May 2022**

- As a class, created from scratch a Python rendering engine that can ray trace 3D objects and meshes
- Incorporated various features, including reflections, adjustable lighting, shading (Gouraud, Blinn-Phong, Lambert), texture mapping, and a moveable camera
- With a partner, improved the base engine to make it over 100 times faster, and have it produce red-blue anaglyph versions of any set of pictures, creating a short animation to showcase the function

R Studio & Pandas | Data Wrangling & Visualization Course | Wartburg College **April 2022**

- Wrangled raw Capital BikeShare data in R Studio and used the leaflet package to create a choropleth, in order to analyze patterns in bicycle rental habits in Washington D.C.
- Joined data frames, cleaned up data using regular expressions, and created plots using the ggplot and dplyr packages in R Studio to analyze information about nuclear reactors
- Created data frames and plots in a Jupyter notebook, using pandas, Matplotlib, and numPy, to analyze data about gene expression in cancer cell lines

TECHNOLOGY COURSEWORK

- Concurrent Systems
- Artificial Intelligence
- Computer and Network Security
- Data Structures & Algorithms
- Programming Languages
- Graphic Design

TECHNOLOGY SKILLS

Languages: Python, JavaScript, PHP *(proficient)*, TypeScript, Prolog, Scheme, SQL, Java, Kotlin *(familiar)*
Frameworks/Tools: Node, npm, Fetch API, axios, Keras, Make, Jest, unittest, pyControl, tkinter, Flask
Adobe Creative Suite: Illustrator, InDesign, Photoshop, Lightroom, XD