ALEXANDRA WONYU

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EDUCATION

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

Major: Computer Science, B.A. (*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 | Aboundant | 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 used**: 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 | 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 in back-end, Spotify Web API for asynchronously fetching playlist and track data, Git for version control, Adobe XD for initial prototyping

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

- 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 | 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	Computer and Network Security	Programming Languages
Artificial Intelligence	Data Structures & Algorithms	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