Nicholas Bowden

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Computer Science major with hands-on project experience using diverse technologies. Enthusiastic about learning new skills and a strong desire to make positive contributions. Seeking internship opportunities with an availability to start immediately.

EDUCATION

BS Computer Science, Oregon State University (expected 2022) GPA: 3.96

- Coursework: Software Engineering, Data Structures, Algorithms, Web Development, Databases

BA Music, Eastern Washington University

PROJECTS

Booknook - Book recommendation application where users get unique results based on the subject selected. The application makes API calls to the OpenLibrary API to get book data and calls a microservice to pull book cover and vendor links for purchasing. Users can create an account and when logged in, they can save books to a database to view later.

- Created as part of a five-member Agile team developing microservices.
- Work completed in React, Node.js/Express.js, and MongoDB/Mongoose.
- Implemented user token authentication with JWT, password encrypted with 'bcrypt' hashing function.
- Hosted on Heroku, try it here.

CrowdFlow – Collaborated on development of an admin interface for a ticketing system with a web-based UI utilizing a RESTful architecture.

- Designed schema and wrote Entity Relationship Diagram and project proposal.
- Developed multiple pages with CRUD functionality and dynamic updating.
- Modeled several database relationships with use of foreign keys and constraints.

Blog List – Full-stack single page blog list application that enables users to log in and post blog links on a public wall.

- Engineered backend with Node.js and Express.js with Mongoose to communicate with MongoDB, hosted on Heroku.
- Built frontend with React.js, Styled Components, and Axios.
- Created testing suite using Cypress with Jest and Supertest for unit testing.
- To view, login here using password and username "guest".

DFS/BFS/Dijkstra's – Python implementations of the depth-first, breadth-first, and Dijkstra's search algorithms for graphs.

- Implemented functionality for both directed and undirected graphs.
- Applied adjacency lists and matrices to find valid paths, connected nodes, cycles, and edge cases.

Alpha Energy - Built a microservice web scraper that retrieves the Alpha Energy/Intensity levels of a radionuclide based on the atomic number and mass number provided.

- Built using Node.js and the Puppeteer JavaScript library for browser automation and scraping.

SKILLS

JavaScript, HTML, CSS, Python, SQL, Node.js, Express.js, React.js, MySQL/MariaDB, MongoDB, Git/Github, Asana, Agile

INTERESTS

3D printing, microelectronics with Raspberry Pi, building gaming PCs, drums, avid reader (200 books in four years)

WORK EXPERIENCE

Professional experience includes roles in restaurant, retail, landscaping, and summer student programs