James Marsh

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EDUCATION

Montana State University   Bozeman, MT
Bachelor of Science in Computer Science   *Expected Graduation: May 2023*
   Relevant Coursework: Data Structures & Algorithms, Software Engineering, Full Stack Web Development, Discrete Structures, Computer Science Theory, Database Systems, Software Testing

TECHNICAL EXPERIENCE

Software Engineer Intern   June 2022 - August 2022
Belvedere Trading, LLC   *Chicago, IL*
- Worked with a team of interns to develop a new web app for managing automated trading algorithms.
- Implemented C# server for business logic using ASP.NET Core and Entity Framework Core with a SQL database.
- Completed Hackathon project to add additional features to standalone .NET trading application.
- Received formal training in Python, C++, C#, and Financial Derivatives (Options, Futures).

Intern - Software Development   July 2021 – December 2021
Mackay Sposito   *Remote - Vancouver, WA*
- Wrote a new web application to generate custom accounting reports with Javascript, R, and MySQL
- Developed additional features for existing employee benchmarking tools with Javascript, R, and MySQL
- Modeled staffing procedures for Grant County PUD to optimize budget allocation using Visual Basic

PROJECTS

Shopify Pricing Plugin | *Express, NodeJS, PostgreSQL, GraphQL*   Spring 2022
- Collaborated in a Scrum-based team to release an application to the Shopify app store for a client
- Designed and implemented database for customer pricing information
- Developed server with Express and NodeJS to provide GraphQL API for frontend
- Contributed to daily Scrum meetings, sprint planning and retrospectives

D&D Web Character Builder | *MongoDB, Express, React, NodeJS*   Fall 2021
- Collaborated in team to develop a full-stack web application with the MERN stack
- Designed and implemented databases for user & game data in MongoDB
- Implemented a REST API for retrieving & editing character data using Express
- Developed pages for users to create and view characters in React

Reddit Post Generator | *Python*   Spring 2021
- Developed an application to analyze posts on reddit and generate new ones on a chosen topic
- Utilized Python Reddit API Wrapper (*PRAW*) to scrape text from Reddit posts on the video game *Path of Exile*
- Parsed text posts, indexed by keyword and date/time
- Implemented Markov chain text generator to create new posts for a given topic based on popular keywords

Sudoku Game & Solutions Guide | *Python*   Fall 2020
- Built a GUI to play the game of sudoku
- Wrote an algorithm to generate a solution guide using constraint propogation
- Implemented generalized solution finder for any solvable game using backtracking algorithm

TECHNICAL SKILLS

Languages: C#, C++, Java, Python, JavaScript, HTML/CSS, Visual Basic
Tools & Frameworks: Git, ASP.NET, SQL, React, NodeJS, Express, PostgreSQL, MongoDB

PROFESSIONAL EXPERIENCE

Project Manager / Estimator   June 2016 – Aug. 2018
J's Custom Landscaping   *Vancouver, WA*
- Prepared detailed written proposals and work orders for landscaping projects and maintenance plans
- Scheduled & coordinated subcontractors, materials delivery, and employees
- Regularly collaborated and worked with general contractors, business owners, property managers, homeowners associations, engineers, and government