Nathan Derenne

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Full Stack Web Developer with a background in physics and astrophysical research with a passion for continuous learning. Experience working with a broad scope of concepts from creating fully functional web applications to creating custom programs working at the leading edge of research advancement.

TECHNICAL SKILLS

Languages: JavaScript ES6+, CSS3, HTML5, SQL, NoSQL, Python
Applications: Adobe Lightroom, Adobe Photoshop, GitHub, MySQL, SQLite
Tools: Node, Express, Inquirer, Sequelize, MongoDB Jest, bcrypt.js, Heroku, Model View Controller, RESTful API, OOP, jQuery, Bootstrap, Handlebars.js, Agile methodology, NumPy, SCIMES, NetworkX

PROJECTS

24 Chains • GitHub: github.com/MarynaPR/24-Chains • **Deployed:** dry-mesa-09626.herokuapp.com

- **Summary:** Allows for users to have a social media feel while locating, saving, and sharing favorite frisbee golf courses. Enables posting reviews and showing personal scores at the individual courses with the ability to see other users scores on a live timeline.
- **Role:** Organized the front end utilizing Handlebars.js and created nested and sorted objects from our API to be called to the corresponding handlebars page by request.
- **Tools:** JavaScript, Node.js, express.js, bcrypt.js, connect-session-sequelize, MySQL, Sequelize, Jest, CSS, SCSS, HTML, Handlebars, Bootstrap, GitHub

OneStopJob • GitHub: github.com/frostyausty/OneStopJob • **Deployed:** frostyausty.github.io/OneStopJob

- **Summary:** This application localizes job searches through multiple job search platforms in one location, which reduces the redundancy of job searchers when looking for a position.
- **Role:** Worked on the JavaScript and the API calls for the application.
- **Tools:** HTML, CSS, JavaScript, Bulma, Adobe XD, API, GitHub

EXPERIENCE

Data Extraction Analyst, 09/2020 to Present
Cyclomedia Technology Inc. – Madison, Wisconsin

- Analyzed and extracted large quantities of LiDAR point cloud and imagery data from multiple imaging sensors to create detailed maps of various environments.
- Used 3D environmental navigation through the Unity based proprietary program.

Astronomy Undergraduate Researcher, 12/2017 to 05/2020
Department of Astronomy, University of Wisconsin Madison – Madison, Wisconsin

- Utilized Python with NumPy, SCIMES, and NetworkX to analyze radio data from the Southern Galactic Plane of the Milky Way Galaxy, which culminated in a formal presentation at the University of Wisconsin Undergraduate Research Symposium.
- Ran machine learning k-nearest neighbors on identified clustered objects and extracted spectral data utilizing a dendrogram based library (SCIMES) and a data structure analysis algorithm created using NetworkX to generate a filamentary catalog.
- Created a 2D topographical map of the 3D radio data by integrating along the third axis for each filamentary candidate based on geometric relationships
- Assisted in the operation of the WIYN 3.5-Meter Telescope at Kitt Peak National Observatory to collect data of distant galaxies in close relation to another galaxy for future analysis to determine the dates of these galaxy interactions.

0211 Counterintelligence/Human Intelligence Specialist, 10/2019 to Present
United States Marine Corps – San Antonio, TX

- Applied for Top Secret Security Clearance with Sensitive Compartmented Information.

1391 Bulk Fuel Specialist, 02/2014 to 10/2020
United States Marine Corps – Green Bay, WI

- Operated and maintained multi-million-dollar equipment with 100% accountability of all assigned equipment.
- Planned and managed 154 Marines for a 5-day field operation resulting in project completion 48 hours prior to the deadline through thorough communication and delegation of tasks.
- Eliminated unneeded costs and manhours for a Marine Corps event by optimizing the planning process and isolating certain costs which resulted in reducing the total cost 15%.

EDUCATION

University of Wisconsin Extended Campus – Madison, WI
Full Stack Software Engineer Course – Feb 2021

- Created a mobile first responsive application using HTML, CSS, JavaScript, and Bootstrap to mimic a mock-up that was provided through Adobe software.
- Designed an inquirer based README.md generator that walks the user through a series of questions and generates a readme file based on user responses
- Followed a mock-up to create a scheduler application using jQuery and moment.js to update the scheduler throughout the day to maximize user efficiency, with Chrome inspector to aid with the debugging process.
- Developed a node.js and MySQL based application that allows a company to create an accurate database of all employees and relevant company structure data.

University of Wisconsin Madison – Madison, WI
Bachelor of Science in Astrophysics and Physics
Awards: NASA Space Scholarship, Two semesters

University of Wisconsin Green Bay – Green Bay, WI
Awards: Honors, Two semesters; High Honors, One semester