Brandon Alvarez

Software Engineer

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Software Engineer with a passion for collaborative problem solving. As a veteran drone operator, paratrooper, and former environmental engineer, holds extensive experience in assessing and tackling complex obstacles head-on. Viewed as adaptable, coachable and charismatic. Thrives in collaborative and forward-thinking environments, bringing fresh perspectives to motivate and develop a team.

TECHNICAL SKILLS

Front-End: HTML/CSS, JavaScript, Python, React.js
Back-End/Database: Node.js, Express.js, Flask, Django, MongoDB, Postgre, MySQL
Frameworks/Libraries: Bootstrap, React-Bootstrap, NumPy, Pandas
Other: Git/GitHub, REST APIs, AJAX, JSON, OOD/OOP, ArcGIS/GIS, AutoCad

PROJECTS

Breddit: The Better Reddit | *React.js, JavaScript, HTML, CSS, Python, Django*— **_Site Link_**
  * Built a Reddit-inspired, bread-themed, full-CRUD social media application as project lead and code maintainer
  * Developed a front-end and back-end with full-user authentication and the ability to create, delete posts, and leave comments
  * Managed front-end design and styling, including react routing and navigation, dark and light themes, and live chat functionality

PetLyfe Ecommerce Website | *React.js, JavaScript, HTML, CSS, JSON, Express.js, MongoDB* — **_Site Link_**
  * Led the design and development of a full-stack pet style product ecommerce website on a 5-person team
  * Created a Full-CRUD database and deployed a products API using node.js, express.js, and Mongo/Mongoose
  * Served as technical lead and code maintainer for both front-end and back-end development, setting React.js component structure, hooks, and resolving merge conflicts

The Boogeyman: Front End game | *JavaScript, HTML, CSS, node.js, Git* — **_Site Link_**
  * Designed a 2D side-scrolling game with recursive animation functions and object-oriented design on Canvas
  * Implemented arcade-style visuals and engaging sound effects
  * Used physics concepts and geometry to generate game mechanics and collision detection, optimizing game play
  * Manipulated data structures to randomly produce and remove objects from canvas and register keystrokes

EXPERIENCE

Water Engineer   May 2021 – Sept. 2022
Arup, Arcadis   *New York, NY*
  * Utilized Python and GIS for geoprocessing automation decreasing time to build hydraulic maps by 70%
  * Developed fill-able forms using JavaScript to perform hydraulic calculations and display results from raw data, improving access to business intelligence
  * Created a logic-based tool to determine and execute calculations by geometry and rainfall volume, reducing hydraulic design time by 150%
  * Utilized python to calibrate, run, and generate data visuals for transport models of contaminants in water bodies

Unmanned Aerial Systems (Drone) Operator   2013-2017
U.S. Army   *USA, Europe*
  * Led teams as aircraft commander and flight simulator lead, deploying technology to increase efficiency of maintaining a platoon of 30 operators by 50%
  * Maintained standards for drone technology documentation, including emergency procedures and troubleshooting solutions.

EDUCATION

General Assembly   New York City, NY
480+ Hour Software Engineering Immersive   *Aug. 2022 – Dec. 2022*

Manhattan College   Riverdale, NY
Bachelor of Science in Civil and Environmental Engineering, Mathematics Minor