Brandon Alvarez

Software Engineer | Software Developer | Full-Stack Engineer

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Dynamic and ambitious Software Engineer with a passion for collaborative problem-solving. Proven technical experience as a veteran drone operator, paratrooper, and environmental engineer. Enthusiastically faces complex and ambiguous challenges head-on. Brings adaptability and charisma to both cross-functional teams and individual work. Delivers fresh perspectives that are crucial to innovating with and elevating a modern software engineering team.

TECHNICAL SKILLS

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

PROJECTS

The Boogeyman: Front End game | *JavaScript, HTML, CSS, node.js, Git — **Deployed Site Link***
  * Designed a 2D side-scrolling game with recursive animation functions and object-oriented design on Canvas
  * Generated game mechanics and collision detection using physics concepts and geometry to optimize game play
  * Manipulated data structures to randomly produce and remove objects from canvas and register keystrokes

Animal Crossing Villager Search | *JavaScript, HTML, CSS, AJAX, JSON, Git — **Deployed Site Link***
  * Created a visually appealing character tracker for the Nintendo Animal Crossing game by retrieving JSON data from RESTFUL APIs using AJAX and styling with CSS
  * Designed a responsive slideshow user interface which indexes which character is currently being viewed
  * Utilized forms and submit features to search villagers by name

Tic Tac Toe Game | *JavaScript, HTML, CSS, Git— **Deployed Site Link***
  * Developed a tic tac toe game with responsive design for desktop and mobile play
  * Implemented data structures and a scoring algorithm to decide win cases and ties

EXPERIENCE

Water Engineer   Oct. 2021 – Sept. 2022
Arcadis   *New York, NY*
  * Utilized Python and GIS for geoprocessing automation decreasing time to build hydraulic maps by 70%
  * Created fill-able forms including JavaScript to perform and display results of hydraulic calculations, by taking in user input of raw data to decide which calculations and formulae to implement

Water Engineer   May 2021 – Sept. 2021
Arup   *New York, NY*
  * Created logic-based tool to determine and execute calculations by geometry and rainfall volume; reducing hydraulic design time by 150%
  * Utilized VBA to calibrate, run, and generate data visuals of transport models of contaminants in water bodies

Unmanned Aerial Systems (Drone) Operator   2013-2017
U.S. Army   *USA, Europe*
  * Served as aircraft commander and flight simulator lead, acquiring new flight simulator technology allowing for 50% increase in efficiency of maintaining a platoon of 30 operators monthly and annual flight currency
  * Maintained standards of drone technology documentation for emergency procedures and troubleshooting solutions

EDUCATION

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

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