ROB GARCIA

Software Engineer

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SOFTWARE ENGINEERING SUMMARY

- Software Engineer with 9+ years experience producing data driven solutions for complex problems, including 5 years experience as Mechanical Engineer and 4 years experience as Educator
- Completed Web Development Certificate Program focused on creating Full Stack Web Applications
- Mentor and creator of project based curriculum for science and engineering classes

TECHNICAL SKILLS

Proficient: *Javascript, HTML5, CSS, React, Node, Express, PostgreSQL, Git*
Knowledgeable: *C++, Python*

TECHNICAL PROJECTS

tickY | **Full Stack Engineer** | December / 2022 | Bootcamp Project | Link | GitHub Repo
App for music lovers to find and purchase concert tickets for their favorite artists. Users can search and filter artists, then add, edit, or delete tickets from their cart. Items in the cart for registered users are persistent between logged-in sessions. Admin users have access to a dashboard to view and edit users, tickets, artists, venues, and orders.

- Developed with the PERN stack (PostgreSQL, Express, React, NodeJS)
- Incorporated use of the Stripe API to handle purchase requests
- Wrote tests with Jest to test API routes and Database adapter functions

Fitness Tracker | **Full Stack Engineer** | October / 2022 | Bootcamp Project | Link | GitHub Repo
A platform for creating and sharing fitness routines. Registered users are able to create, edit, and delete (CRUD) routines and activities, attach activities to routines, and search by routine name, routine ID, activity name, or activity ID.

- Developed with the PERN stack
- Utilized test-driven development using Jest to create API and Database
- Incorporated hashing for storage and retrieval of sensitive user information

Stranger's Things | **Front End Developer** | September / 2022 | Bootcamp Project | Link | GitHub Repo
A single-page application for an E-Commerce site. Registered users are able to create, edit, and delete posts (CRUD) as well as send and receive messages from other users.

- Developed as a single-page application using REACT
- Utilized React Router to define page routing and React Hooks to manage state
- Implemented user authentication with JWT

EXPERIENCE

Engineering Teacher | **Charlottesville City Schools** | Charlottesville, VA   August/2021 - Present

- Mentor and Coach of after-school Engineering Club with focus on programming Robotics
- Developed Project Based Curriculum that includes programming microcontrollers and creating 3D CAD models
- Advocated for and implemented computer programming based curriculum for underrepresented minority students

Math and Physics Teacher | **School District of Philadelphia** | Philadelphia, PA   August/2019 - June/2021

- Developed and Co-Facilitated a two-part Professional Development series for the school district entitled "Model-Based Inquiry with Desmos for the Physical Sciences"
- Mentored and Supervised student resident teacher from Drexel University
- Founder and Lead Coach/Mentor for after-school Robotics Club
- Secured over $1,400 grant from the Navy

Mechanical Engineer | **AKF Engineers** | Philadelphia, PA   May/2007 - March/2012

- Coordinated with Architects and Engineers to evaluate energy saving systems in HVAC, lighting, and building design
- Evaluated over 3,000,000 square feet of Energy Modeling Studies
- Designed and completed construction documents for high performance energy systems that included geothermal heat transfer, energy recovery, and natural ventilation
- Expert at LEED modeling as well as managing multi parameter studies to determine the best balance between costs and energy savings

EDUCATION

Virginia Tech   June/2022 - Dec/2022
Web Development Certificate
Immersive 24 week-long Bootcamp dedicated to learning Full Stack Web Development

Temple University   June/2019 - June/2020
Master of Education in Secondary Education - 31 Credits
Focus on Project Based Inquiry Learning
Received the Mazurkiewicz Award and Banneker Award Fund for academic excellence

Virginia Tech   August/2005 - May/2007
Master of Science in Mechanical Engineering - 74 Credits
Relevant Courses: Digital Signal Processing, Computational Fluid Dynamics

Virginia Tech   August/2000 - May/2005
Bachelor of Science in Mechanical Engineering - 126 Credits