William Carter

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EDUCATION

Rensselaer Polytechnic Institute Troy, NY — 09/2020-05/2024
 Bachelors of Science in Computer Science (AI and Data) and Economics

EXPERIENCE

Microsoft Nuance - *Software Engineering Intern* Burlington MA — 05/2023-07/2023

- Built a user-centric full-stack web application, leveraging ReactJS, TailwindCSS, FastAPI, Docker, Terraform, and PostgreSQL. The app enables non-technical users to deploy their own infrastructure through customizable templates curated by the team.
- Spearheaded development of the Terraform Execution Engine, an internal Python library that intakes a given API payload, then dynamically generates and executes Terraform commands to deploy the desired infrastructure.
- Led a subgroup of interns to design and develop an intuitive user interface. Roadmapped and delegated tasks across the working group, while fostering a cohesive, collaborative environment.
- Worked with an international team across 3 different time zones using a follow-the-sun approach. Adopted Scrum methodologies for streamlined task allocation, effective communication, and sustained progress, culminating in a functional proof-of-concept.

Fidelity Investments

Database Engineering Intern Smithfield RI — 06/2022-08/2022

- Designed API request and response system to streamline data intake from many different sources, effectively replacing custom API scripts with easily adjustable 'data filter' configuration files.
- Reduced codebase by 30%, vastly increasing legibility by streamlined the implementation process for new API data. This turned potential multi-week developments to quick adjustments in config files, minimizing the need for extensive QA testing.

Full *Stack Software Engineering Intern* Merrimack NH — 06/2021-08/2021

- Built a Machine Learning and data processing pipeline in Apache Spark, which cleaned, reformatted, and analyzed client data in a fully automated fashion. This unlocked new potential in client prediction accuracy, preference management, and capital flow balance.
- Developed an improved web frontend for enterprise benefit clients using Angular, increasing data usability.
- Implemented a backend caching system for historical client data, resulting in an up to 90% speed increase for page loads.

Zelgor Inc - *Mobile Game Developer Intern* Boston MA — *06/2019-08/2019*

- Co-designed and developed Noobs in Space, Zelgor's first commercial release, generating 20,000 downloads in 48 hours from the initial beta alone.
- Engineered a multitude of core system features, including gameplay systems, in-app purchases, and UI, as well as art and music content. Tech stack included Unity/C#, Blender, Photoshop, Git, Jira.
- Worked in an Agile startup environment, building new products from scratch, presenting vertical slices, and communicating with investors, causing valuation to rise to $4.8 million.

Massachusetts Institue of Technology - *Research Intern* Cambridge MA — *06/2018-08/2018*

- Worked with MIT researchers to analyze forearm motor-neural data for use in rehabilitative and autonomous prosthetics.
- Collected patient data using a robotic machine resistance system simulating a circular constraint, then used MATLAB to calculate and visualize tangential velocity and radial forces for use in new tests.

TECHNICAL SKILLS

Programming Languages: Go, Rust, Python, C, C++, C#, Java, Javascript
Tools & Frameworks: ReactJS, TailwindCSS, AngularJS, PyTorch, Pandas, Apache Spark, Docker, Git, Unity, Blender, Photoshop, Figma, MATLAB, HTML5, CSS