William Carter

Wellesley, MA | 781-708-3135 | [Linkedin](#) | [Github](#) | cartew4@rpi.edu

EXPERIENCE

Fidelity Investments, Smithfield RI — 06/22-08/22

Database Engineer

- Designed a **fully generalised system** for handling all API requests and responses from various data sources, replacing all custom API scripts with 'data filter' configuration files.
- Contributions **reduced codebase size by 30%**, vastly increasing code legibility. Development time for implementation of new API data was reduced from a likely multi-week endeavour involving codebase changes and therefore QA testing, to a quick change to the config file of the given API, leaving core logic undisturbed.

Fidelity Investments, Merrimack NH — 06/21-08/21

Full Stack Software Engineer

- Built a **Machine Learning** and data processing pipeline in **Apache Spark**, which cleaned, reformatted, and analysed client data in a fully automated fashion. This enabled new opportunities in client prediction, preference management, and capital flow balance.
- Developed an improved web frontend for enterprise benefit clients using **Angular,** increasing data usability and streamlining the client experience. The most notable improvement was the implementation of a **backend caching system** for historical client data, which resulted in an up to **90% speed increase** for client page load tasks.

Zelgor, Inc, Boston MA — *06/19-08/19*

Mobile Game Developer

- 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 Institute of Technology, Cambridge MA — *06/18-08/18*

Research Intern

- Worked with MIT researchers to collect and analyse 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 visualise tangential velocity and radial forces for use in new tests.

EDUCATION

Rensselaer Polytechnic Institute, Troy, NY — 09/20-05/24

Bachelors of Science, Computer Science (AI and Data)

TECHNICAL SKILLS

Over 7 years of programming experience across many disciplines, from full stack web to data science to game design.

Programming Languages: C, C++, C#, Rust, Python, Java, Javascript, HTML5, CSS
Tools & Frameworks: AngularJS, NextJS, Tensorflow, Keras, Pandas, Apache Spark, ExpressJS, Docker, Git, Unity, Unreal Engine, Blender, Krita, Figma, MATLAB