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Dakota Cardillo

Active Secret Clearance
Software Engineer

Employment

Intermediate Software Engineer   **Applied Research Associates**   **2023 – Present**

Worked on functional testing and automation tools for various simulation projects utilizing Unreal Engine 5.

- **Offered knowledge and expertise in regression testing methodologies** by creating a presentation on different testing strategies for real-time applications.

Mid-Level Software Engineer   **SS&C Advent**   **2020 – 2023**

Worked on frontend and backend projects with various teams for the Black Diamond web application. Combined software and financial expertise to maintain tools for calculating cost-basis, rebalancing, and asset reconciliation.

- **Maintained backend services in C# for complex SQL queries** to edit hundreds of tables for later use in frontend financial reporting tools.
- **Helped create an encryption system for tax IDs** that allowed financial firms to track taxable account information across portfolios without compromising personally identifiable user data.
- **Developed a strong understanding for web technologies and frameworks** including React/Redux and database management, having no prior knowledge beforehand.

Software Engineer   **The Boeing Company**   **2019 – 2020**

Served as a Software Development Lead and Scrum Master for Boeing's 737/P8-A and AH6i aircraft virtual maintenance trainers. Coordinated with cross-functional teams to design and implement software solutions, define and understand project requirements, and identify performance improvements in our products and workflow.

- **Assisted in leading a cross-functional development team as a Scrum Master** by defining task requirements, contributing to software design, managing team priorities and metrics, and coordinating with other teams.
- **Lead an effort to improve testing and regression analysis strategies** by developing an automated frontend regression testing suite to identify, record, track and validate discrepancies within various projects.
- **Optimized team workflow and eliminated development bottlenecks** by creating software tools to automate common tasks for artists and software engineers such as prefab loading, object selection and asset search.
- **Job required extensive leadership and development knowledge** to implement various features for 3D simulations In Unity including shaders, user interfaces, 2D/3D animation, optimizations, and tools for artists and developers.

Software Engineer   **System Service Enterprises**   **2016 – 2019**

Responsible for designing, documenting, implementing, and testing software used to simulate aircraft maintenance training procedures for commercial and military use. Skills involved included problem solving, software architecture, communication, and team workflow management.

- **Designed and implemented a procedural animation system** for simulating realistic mechanical movements for various aircraft components such as flight control systems for airplanes and helicopters.
- **Created an interactive streaming library** to establish VNC connections within the Unity virtual environment. Optimized steaming performance to improve connection latency and bandwidth.
- **Lead a software demo for the FAA** to exhibit light-weight virtual trainer capabilities using 360-degree images and embedded media playback including videos and XML file support.

Projects

Cell Counter (PC)   **Personal Project**   **2017**

An image processing program using C++ and OpenCV to count neurons within images of G-CaMP expressed cells. Using image filtering techniques and color analysis algorithms, the program was able to accurately display the number of cells within the images.

Education

B.S. in Game Development   **Full Sail University**   **2016**

Course Director's Award Earned in Windows Tools Programming and Game Engine Development

Skills

Programming Languages / Frameworks

C, C#, C++, Python, JavaScript, Java, HTML, CSS, XML, .NET, LINQ, Regex, TCP/IP

Applications / Platforms / APIs

Unity3D, Unreal Engine, Git, Visual Studio, GCC, Jenkins, Jira, VMWare, Microsoft Office, Blender, Windows, Linux, MacOS, Virtual Reality, Real-Time Simulations, Software Design Patterns