

ANDREW MARSHALL

Full-Stack Software Developer

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PROFESSIONAL EXPERIENCE

CARILION CLINIC

Roanoke, Virginia

INNOVATION ENGINEER INTERN

2025-Present

Worked on a large number of projects doing fullstack web development, app development, machine learning with vision models, embedded programming, as well as refactoring old codebases, setting up DevOps workflows as well as other things

- *Worked on a machine learning vision model application for a research study being conducted in a hospital*
- *Created a React web app for tracking staffing data in the hospital, using NodeJS and MySQL in the backend*
- *Worked on an mobile app in Flutter using Bluetooth low energy for communicating to custom hardware*
- *worked on embedded program for data collection from sensor and python to analyze the data*
- *Setup github workflow and helped other engineers learn to use git and github*
- *Created a Electron app with NodeJS, React, and a Python subprocess running a multi-step inference model (Inference model is part of a research paper in partner with Virginia Tech in peer review as of 5/13/2025)*

FREELANCE

Roanoke, Virginia

Freelance Software Developer

2023-Present

Established a software development contracting firm, specializing in formulating and executing contracts for a range of enterprises. Proficient in spearheading projects within innovative domains like Machine Learning.

- *Conducted comprehensive financial data analysis for a diverse set of tickers, leveraging Python libraries including Pandas, Matplotlib, Seaborn, S3fs, Yfinance, and Trendet.*
- *Developed python scripts inside of Jupyter notebooks that are capable of labeling data for use in machine learning applications as well as writing code that makes use of the TPOT library to create models for use in machine learning applications*
- *Consistently delivered projects under time within high-pressure Agile environments.*
- *Utilized Docker, MySQL, and Python to develop an API to deliver content to a custom wordpress plugin*
- *Developed a Wordpress Plugin that hydrates a Single Page Application with data from a Custom API*

JOEBAIDOTCOM | SHORTSTAF

Radford, Virginia

Fullstack Mobile Developer

2021-2024

Lead the development, management, and enhancement of mobile applications for over 10,000 users across Android (Java) and iOS (Swift) platforms. Write the code for the app on Android and different iOS systems. Assist in diagnosing and resolving server-side API issues. Help users understand application functionalities through user training.

- *Designed and introduced multiple application components and improvements such as adding staff training and learning system, updating dependencies, and re-implementing the chat functionality.*
- *Drove efficiency enhancement by implementing React-Native to expedite the creation of cross-platform pages, resulting in a 50% reduction in development time.*
- *Developed iOS and cross-platform components by gaining and utilizing strong expertise in new programming languages*
- *Consistently delivered projects under time and budget within high-pressure Agile environments.*
- *Troubleshooted Google Firebase and Twilio APIs to resolve notification problems.*

CONDUENT (APPLE CONTRACTOR)

Radford, Virginia

Technical Support Representative

2021

Provided onsite and remote technical support to customers by maintaining mobile and desktop systems, troubleshooting technical issues, and performing access control. Identified and troubleshooted software and hardware issues by working collaboratively with customers.

- *Achieved 90% customer satisfaction rate by efficiently dealing with sensitive customer information and delivering excellent support while adhering to established protocols.*

ADDITIONAL PROJECT

Radford, Virginia

C++ RENDERING ENGINE PROJECT

2023

Work on improving the performance and compatibility of rendering engine through technical innovations, architecture expertise, and technical proficiencies.

- *Developed a versatile rendering library capable of processing 3D models from files and supporting custom shaders.*
- *Designed and executed a modular framework, facilitating seamless integration of novel rendering techniques and features.*

- *Established an Abstraction Layer bridging platform-specific bindings and Graphical API's, paving the way for future cross-platform compatibility and support for diverse Graphical APIs like Vulkan or DirectX.*
- *Engineered a C++ based high-performance rendering engine that leveraged contemporary OpenGL for optimal graphics processing efficiency.*

EDUCATION

RADFORD UNIVERSITY

[2 YEARS COURSEWORK TOWARDS COMPUTER SCIENCE DEGREE]

Radford, Virginia

2019-2021

ADDITIONAL INFORMATION

- Program Management: SDLC (Software Development Life Cycle), Jira
- Technical Skills: Java, C++, C#, Swift, Python, JavaScript, CSS, HTML, Lua, Premake5, Git, Batch, SQL, OpenGL, React-Native, Flutter, AWS (Amazon Web Services), Google Cloud Platform