

Frank H. McPherson IV

Profile

Technical leader and software engineer specializing in scalable data processing systems, serious games, geospatial data & applications, and modeling, simulation & training

Experience

2019 to present

Senior Software Engineer Apple, Cupertino, CA

- Apple Media Products Digital Supply Chain Engineering (AMP DSCE), Content Protection Team
- Maintain & operate AMP's legacy content protection apps & services
- Design and develop modern, containerized content protection services using attribute-based access controls, microservices, and containerized deployments

2013 to 2019

Senior Software Engineer Apple, Cupertino, CA

- Maps Digital Supply Chain Engineering, Points of Interest (POI) Team
- Daily POI Data Updates from external & internal providers
- Provide POI integration for tentpole client & services features, such as Transit, Venues, and Apple Card
- POI integration for Apple-owned Maps Data Initiative that began roll-out in 2018

2001 - 2013

Technical Director, Janus Research Group, Evans, GA

- Led development of Unity3D Virtual Environment Engine (UVEE), a serious game platform written in C# and Unity3D
 - Developed tooling and domain-specific language for instructors to produce course material
 - Managed teams that delivered thousands of hours of interactive training simulations, bringing in tens of millions of annual revenue

- Wrote QTPlayback, a widely-used Unity3D plug-in to play QuickTime movies on any texture in a scene
- Integrated hardware fingerprint scanner with Unity3D serious game
- Managed team providing data engineering support to a DARPA machine vision project, Mind's Eye
- Led a team of software developers to develop NPST, a terrain-based communications coverage planner written in Java and Java3D
- Developed *netflows*, a turnkey network performance monitoring system using LIBPCAP, a Postgresql data store, and a Java front-end

2000 - 2001

Lead Software Engineer, AdEvia Ltd., London, United Kingdom

- Developed network management and operations support software for venture-funded pan-European broadband aggregation start-up
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Education

Bachelor of Science, Computer Science, Virginia Tech

Key Skills

Java/Scala, Python, Unity 3D, C#, C, Cocoa, JavaScript, SQL, Spark, MapReduce, Git, Linux, Cassandra, Kafka, Redis
