Shamyl Zakariya
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I'm a C, C++, Rust, Objective-C, C#, Java, Swift, Python, OpenGL/GLSL, HTML/CSS/Javascript and anything else programmer focusing on user experience, graphics, performance, mobile apps and AR/VR.

2020-present: Stream, LLC
Graphics Engineer
At Streem I work on optimizing and extending the AR experience of Streem's AR communications tools, specifically focusing on custom metal rendering pipelines, and interactive guided experiences for users.

2019-2020: Bluehawk, LLC
Software Engineer, contracted to Google
In my work for Google I have been responsible for building a tool for identifying the nuances and corner cases of Android performance, to aid in making Android a better platform for games. In this role I've been responsible for designing and building the testing framework, data reporting/analysis, and a suite of tests which exercise OpenGL, multi-threading strategies, and other performance-oriented tests relevant to game engine designers.

2016-2019: Vulcan, Inc
Senior Software Engineer, Rapid Prototyping
At Vulcan I was responsible for prototyping Paul Allen's vision with a goal towards productization and IP generation.

- Augmented reality in-stadium fan experience for the Seahawks for AR glasses and phones built in Python/numpy, Unity and native C++
- Android-based data collection/distribution system for health workers in developing nations to monitor trends to detect possible outbreaks
- Hololens-based security glasses experience (ML backend) to aid personnel in recognizing persons of interest on a property, built in C#, C++ and Unity
- Indoor location tracking for venues to improve customer experience while preserving user privacy built in Swift on iOS
- Developer simulator for Vulcan's Holodome, built in C# for Unity
- Input calibration for Vulcan's Holodome installations, built in C# for Unity
- Multi-camera synthesis for simulating "body presence" in virtual reality with a network layer built in C++, and user experience in C# for Unity

1999-2016: APCO Worldwide
Art Director, Front-End Developer
At APCO Worldwide I was responsible for working with clients to prototype, test, design and build websites, web applications, dynamic data visualizations, online games, and native mobile applications.

- Fully responsive web application front ends written in HTML, SASS/CSS, and Javascript
- Native mobile applications for iOS and Android, written in Objective-C, Swift, and Java
- Designed user experiences in Sketch, Photoshop, and Illustrator
- Prototyped user experiences using web technologies (HTML, SASS/CSS, Javascript)

2013-2015: ConsultPro (a failed startup)
UX Designer, UI Designer, Full-Stack Developer

For ConsultPro I was responsible for UX design, UX testing, UI design, iOS development and backend network sync API design and implementation.

1997-1999: Darden School of Business, Charlottesville VA
Graphic Designer & Programmer
At Darden I designed & built educational software in Macromedia Flash and Director.

Personal Work:
In my personal work I've developed robotics simulations (simple behavioral-based locomotion control systems with 2D & 3D visualizations in OpenGL) in C++ with hardware abstraction to enable the models to talk to real hardware. I've written 2D and 3D games and game engines in C++/OpenGL. I've also built micro-service back ends for web applications in Node and Spark Java (a Node-like Java framework built on top of Jetty).

Education:
Art, University of Virginia, class of 1999
A lifetime of reading, building, experimenting and trying to make interesting things