

Personal *Residency: Permanent Resident of the USA (green card)*
Nationality: Irish (Citizen of UK & Ireland)

Recent Employment *Nov '18 – Present* *Hulu, LLC.* *Seattle, WA, USA*
Architect – Clients

Working as an individual contributor across large groups developing the Hulu application on Smart TVs, Mobile platforms, and the Web. Helped unify technology & implementation choices across many features across 5 different application code bases (iOS/tvOS, Android, Roku, Proprietary, and Web)

- Instigated large scale re-think of how our clients interact with the services, introducing two-step requests to get structure + details of displayed content for performance & flexibility reasons
- Co-Design services that allows dynamic identification of a devices & their capabilities to allow feature targeting across all of the application platforms
- Designed, Socialized, and drove implementation of “Weighted Impressions” across all clients to help recommendation services correctly interpret viewer behavior with updated UIs. Client-side performance & capabilities were a key consideration for this design.
- Technical coordination of large redesigns of the primary UI design & interactions across Living Room experiences impacting multiple teams – clients & backends
- Sharing knowledge of managing & supporting the localization processes for client applications as the teams begun understanding & beginning work to localize applications into non-English languages

Feb '18 – Oct '18 *Microsoft Corp.* *Redmond, WA, USA*

Principal Software Engineer

Worked on Visual Studio Live Share real time collaboration tool for developers in TypeScript, C#, running in Visual Studio Code, and Visual Studio for Windows.

- Took over ownership of concurrent operational transform-based co-editing features with Visual Studio Code, and Visual Studio Windows
- Implemented “Local only” undo to reconcile only a single users edits in a distributed editing environment for Visual Studio Code
- Significant code quality clean up & refactor across multiple features (Debugging, Build Task Integration) to support future features
- Rebuilt foundation of file sharing from ‘single’ root, to support multiple disparate root folders in one session
- Mentoring early-in-career team members as they ramped up & tackled their first projects
- Customer collaboration & diagnosis through beta release cycle tracking down co-editing ‘sync’ issues

Sep '10 – Feb '18 *Microsoft Corp.* *Redmond, WA, USA*

Principal Engineering Lead (Nov '13 – Feb '18)

Senior Software Development Engineer (Sep '10 – Nov '13)

Delivered high quality apps, loved by customers (4+ stars) on the Windows platform family of devices -- Mobile, Desktop, Hololens and Xbox. Taking them from green field to established apps on millions of customers devices.

Individual Contributor

- Drove application rewrite of Music & Video for mobile platforms in C++/XAML/UWP
- Delivered 50%+ improvement in startup time for the team’s apps on all platforms
- Infrastructure & Architecture to create good performance by default
- Defined, designed & built an easy to use JavaScript control framework in a pre-React world for Music & Video apps, enabling 40+ engineers to focus experience creation

- Mentored & trained team members on HTML5 technology platform & custom framework, as well as later transitioning the team smoothly to C++/XAML
- Many individual feature contributions in all parts of the applications, on all platforms

People Manager (lead)

- Managed 3-6 engineers in a combined engineering environment, to deliver key experiences around Fluent, Authentication, and windows integration.
- Key member of the team providing guidance on all aspects of the products technical development
- Managed engineers working on iOS (4.5 star) & Android (3.5 star) app
- Transitioned team members from pure developer or testers into combined engineers
- Curated, built, and managed the feature road map of features
- Feature lead for Shell Features: Triage, Work distribution, feature team mentoring. Worked with Program Management to prioritize work along with in/out features for sprints
- Worked with UX/Design team to understand requirements to build new experiences
- Managed team migration from custom build system to MS Build & Visual Studio Online (TFS)

Recent Projects *Jun '12 – Present* **Storyvoid Application**

Full functionality Instapaper Application for Windows that was a 7-year labor of love to build a complete online & offline experience for windows tablets & phone devices. Built using JavaScript, TypeScript and C++. (<https://codevoid.net/storyvoid>)

- Full synchronization engine to support offline reading & management of articles, connected to the Instapaper Service
- Basic control model library in JavaScript (before React), and OAuth Request library to support signed requests (<https://github.com/grork/Utilities>)
- Fully async store-and-forward telemetry library written in C++ (<https://github.com/grork/MixpanelClient>)
- Extensive Unit tests

Full source available upon request

Jan '17 – Present **Occasional tech-related blogging**

I like to occasionally blog about tech-related things – projects I work on, stories I'd like to tell. <https://medium.com/@grork>

**Prior
Employment &
Projects**

Jun '06 – Sep '10 **Microsoft Corp.** **Redmond, WA, USA**

Senior Software Engineering Lead (Nov '09 – Sep '10)

Senior Software Developer (Jun '06 – Nov '09)

Within the Developer Division of Microsoft, I was a member of the 'Visual Studio Team Test' development team. This product is focused on bringing Testing/Quality Assurance tools directly into Visual Studio. Primarily this focuses Unit, Web, and Load Testing, along with integration into Team Foundation Server for the generalist manual tester.

- Created app architecture & key experiences for "Microsoft Test Manager" stand alone app – from green field to V1.
- Air-dropped to India for rapid re-implementation of core user experience of Test Runner
- Participated in maintenance, and development of continuous integration system
- Participated in SCRUM agile development team

- Successfully lobbied for the use of WPF in standalone test management client versus being integrated in Visual Studio
- Designed, developed new implementation for Unit Test generation feature in the '2008' Visual Studio release, targeted at improving stability, performance, maintainability, and future extensibility
- Specification, design reviews, bug triaging, and general development lifecycle duties
- Many similar duties as previous role – customer interaction, collaboration, and mentoring

Jan '04 – Jun '06 **Microsoft Corp.** **Redmond, WA, USA**

Software Development Engineer in Test

Within the Developer Division of Microsoft, I was a member of the 'Visual Studio Team Test' test team. This product was focused on bringing Testing/Quality Assurance tools directly into Visual Studio. Primarily focused Unit, Web, and Load Testing, along with integration with Team Foundation Server.

- Authored shared automation infrastructure for all Team Test & Developer
- Mentored new team members, Interviewed potential new-hires
- Cross-team collaboration (Team Foundation, IDE, Profiler/Static Analysis teams)
- Presented demonstrations of Team Test to customers & internal users
- Liaised with external third-party developers on Team Test extensibility APIs
- Community support (external, and Internal)

Jan '07 – Sept '07 **Wiley & Sons, Inc.** **Hoboken, NJ, USA**

Co-Author - Professional Software Testing with Visual Studio 2005

ISBN: 9780470149782

Working with three co-authors, authored a book about software testing with Visual Studio 2005, to hit a hard-unmovable deadline.

- Defined books scope and contents with co-primary author (Tom Arnold)
- Authored three chapters (Introduction, Unit Testing, and Dynamic & Static Analysis tools)
- Published in September 2007

July '03 – Sept '03 **Microsoft Ltd (Outsourced)** **Reading, UK**

Architect & Lead Developer – Project Hurricane

Student Community Website Toolkit built on ASP.NET & SQL.

Oct. '00–Dec '03 **Palomino Technology Ltd** **Horsham, UK**

Developer (Oct. '00 - Feb. '01) & Consultant (Feb '01 – Jan '04)

CRM application using RESTful-style Web Services, SMS Messaging

Aug. '98–Sept '02 **Century Dynamics Ltd.** **Horsham, UK**

Developer Intern

Parallel processing in MPI/PVM, FORTRAN, C++, command processor for 3D interactive GUI

Aug. '97–Sept. '97 **Vitamin Internet Ltd.** **Brighton, UK**

Web Designer & Developer

Education **2001–2003** **Computer Science, Cardiff University** **Cardiff, Wales**

Professional Interests My professional interests have ranged from operating systems, to specific interaction design & usability. I find all things technical interesting, and enlightening. I actively follow developments in UI technologies, and have an avid interest in deeper technical concepts such as programming languages, and kernels.

I see technology as a tool to make people more effective, productive, and happier at whatever task they are undertaking. It is through my technical understanding I can contribute to technology experiences that further each one of those.

Skills ***Programming Languages & Technology I have shipped applications in:*** C/C++, HTML, CSS, TypeScript, JavaScript, XAML, C#, Visual Basic, Fortran 77/90, Silverlight, WPF

Platforms & Tools: Web, Win32 / .NET, Windows Store Apps (JS & C++), UWP, GIT, MSBuild

Prior experience with: SQL, VBS, Java, PHP

Miscellaneous: Unit Testing, UI Automation, Test Infrastructure, Visual Studio Online, Web Services (SOAP, RESTful), Exchange Server API Development

References ***NB: Microsoft does not provide references: only employment & compensation confirmation***
References provided upon request