Dominic Hopton

E-mail: <redacted>
Web: https://codevoid.net
GitHub: https://github.com/grork

Recent Employment

**Hulu, LLC
Seattle, WA,
USA**

Principal Software Engineer & Architect – Clients   **Nov '18 – Feb '22**

Individual contributor working directly for the VP of all clients (150+ engineers), collaborating across the entire company (1000+ engineers), over multiple locations. Evolved the Hulu non-playback experience on Smart TV, mobile, & web platforms, focusing on unified technology & implementation choices across five diverse application code bases for 35m+ unique devices.

- Developed & guided the organization on a large-scale revamp of how our clients & services interact, embracing a "Service Driven UI" approach, and introducing two-phase request patterns for increased client performance

- Co-designed a new service enabling "reverse" feature identification of devices & their capabilities, allowing services & editors to trivially target devices with the best experience, across the entire catalogue experience, part of the critical call path for our home experience (10m+ calls a day)

- Collaborated with service engineering leaders to reimagine our core client-facing API patterns to enable CQRS patterns to be adopted as part of Hulu's core-services architecture

- Spearheaded adoption of remote feature flagging across five clients through education & first use-by-example for wide-scale rollouts across 35m+ viewers (Co-presented parts here: https://launchdarkly.com/galaxy/custom-attributes-for-fun-and-scale/)

- Technical ownership of nine-month redesign & implementation of the primary UI experience & interactions across all client experiences impacting multiple teams – clients & services (technical), product manager (designing requirements & roadmaps), and adoption of a new Service Driven UI approach (Press: https://press.hulu.com/news/2020/05/20/hulu-unveils-updated-user-interface/)

- Designed, socialised, & drove implementation of low impact "weighted Impressions" for all clients, enabling recommendation services to accurately model viewer behaviour with dynamic UI

- Worked with multiple Director & VP leaders across the organisation, advising on engineering issues – architecture, long-term roadmap, and tactical technical issues

- Formally & informally mentored 10+ early & mid-career engineers from front & back-end teams

**Microsoft
Redmond, WA,
USA**

Principal Software Engineer – Visual Studio Live Share   **Feb '18 – Oct '18**

Individual contributor on Visual Studio Live Share real time collaboration tool for developers writing code in TypeScript, C# for inclusion in Visual Studio Code, and Visual Studio for Windows.

- Ownership of operational transform-based co-editing features with Visual Studio Code & Visual Studio Windows

- Implemented "Local only" undo to reconcile only a local user's explicit edits within a distributed editing environment for Visual Studio Code

- Broad & significant code quality clean-up & refactor across multiple features (Debugging, Build Task Integration) to support future feature growth

- Rebuilt foundation of file sharing from assumed '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

Principal Engineering Lead – Groove Music / Movies & TV **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 projects to established apps on 100's of millions of customers devices.

Individual Contributor

- Drove application technology evaluation leading to rewrite of Music & Video for all platforms in C++/XAML/UWP from Web-based technology stack
- Delivered 50%+ improvement in start-up time for the team's apps on all platforms
- Infrastructure & architecture to enable 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 not infrastructure
- Mentored & trained 10's of 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 & Tech Lead

- Managed 3-6 engineers in a combined engineering environment, to deliver key experiences around Fluent, Authentication, and windows integration.
- Key member of the organization providing technical guidance on all aspects of the product's development
- Managed engineers & external vendors working on Groove Music iOS & Android
- Mentored & grew team members from pure developer or pure testers to transition to combined engineers owning implementation & quality end-to-end
- Curated, built, and managed the feature road map of features for 3-6 engineers, ranging from single sprint to multi-month roadmaps
- Tech lead for Shell Features: Triage, Work distribution, feature team mentoring. Worked with Engineering & Program Leaders to prioritize work along with in/out features, and setting long term direction
- Established strong relationship with UX/Design team to understand requirements to build new experiences (https://channel9.msdn.com/Events/Build/2017/T6092-R1)
- Built action plan, and drove team migration from custom build system to MS Build & Visual Studio Online (TFS)

Personal Projects

Storyvoid Instapaper Application **Jun '12 – Present**

Instapaper Application for Windows as a 7-year labour of love to build a complete online & offline experience for windows tablets & phone devices. Built using JavaScript, TypeScript, and C++. (https://codevoid.net/storyvoid, https://github.com/grork/StoryvoidWWA)

- Incremental data synchronisation engine to support offline edits & management of articles, connected to the Instapaper Service
- Control model library in JavaScript, and OAuth Request library to support signed requests (https://github.com/grork/Utilities)
- Async store-and-forward/producer-consumer telemetry library written in C++ (https://github.com/grork/MixpanelClient)

Skills (aka Keywords for recruiting tools)

Recently Worked with: C/C++, HTML, CSS, TypeScript, JavaScript, XAML, C#, GIT, UWP, Unit Testing
Working Familiarity: Visual Basic, Fortran 77/90, Silverlight, WPF, Swift, iOS, SQL, Java, UI Automation, Test Infrastructure, Visual Studio Online, Web Services (SOAP, RESTful)

Earlier Employment

Microsoft Redmond, WA, USA	**Senior Software Engineering Lead – Visual Studio**	**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, and became SCRUM master of 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 extendibility
- Specification, design reviews, bug triaging, and general development lifecycle duties
- Many similar duties as previous role – customer interaction, collaboration, and mentoring

Software Development Engineer in Test   **Jan '04 – Jun '06**

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 features & functionality to external customers
- Liaised with external third-party developers on Team Test extensibility APIs
- Community support (external, and Internal)

Book Author Wiley & Sons, Inc	**Professional Software Testing with Visual Studio 2005**	**Jan '07 – Sept'07**

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)

Excerpts on my blog at https://codevoid.net/book-chapter

Internships & Early Career	*Palomino Technology Ltd, Developer*: CRM application w/ RESTful Web Services, SMS Messaging *Century Dynamics Ltd, Developer*: Parallel processing in MPI/PVM, FORTRAN, C++, command processor for 3D interactive GUI *Vitamin Internet, Ltd:* Web Designer & Developer
Education	2001–2003, Computer Science (BSc), Cardiff University, Cardiff, Wales