

JOHN DOTY

2026 E Louisa St, Seattle WA 98112

john@d0ty.me • <http://friendlyhedgehog.com/>

OBJECTIVE

Work with talented people to write extraordinary code, watch it run, and use it to make people happy.

EDUCATION

Carnegie Mellon University Pittsburgh, PA, U.S.A. • Bachelor of Science in Computer Science, 1999

WORK HISTORY AND SELECTED WORK

Facebook - Warm Storage (2017-)

Software Engineer (E7)

- Tech lead for team responsible for the metadata for Facebook's hyperscale (multi-exabyte) distributed file system.
- Designed, implemented, and rolled-out the migration from a single-machine, in-memory directory database to a horizontally scalable one.

Facebook - Metric and Dimension Foundry (2016-2017)

Software Engineer

- Designed a company-wide system for defining and materializing auditable metrics and dimensions across Facebook's data warehouse. The system included a repository for discovering metrics and dimensions, rich metadata for defining contact information, revision history, and data quality checks.
- Designed a custom SQL dialect for defining metrics and data transformations, along with compilers targetting multiple big-data query engines within Facebook.

Microsoft - Windows Store (2014-2016)

Partner Architect

- Designed and implemented the client-side licensing application licensing system in Windows 10.

Microsoft - Xbox Live Commercial Services (2011-2014)

Partner Architect

- Designed and was primary implementor on a secure payment gateway usable by third parties. The payment gateway can accept payment from a user for a good without knowing anything about the good being sold. (It is used, e.g., by UFC to sell pay-per-view fights on the Xbox 360.)
- Designed and was primary implementor on the content licensing service for the Xbox One, responsible for enforcing content access policy for games and movies on the Xbox.

Microsoft - Incubation (Codenames 'Ultra'/'Oz'/'Oslo') (2007-2011)

Principal Software Development Engineer

- Did exploratory work in areas related to building declarative apps, including software componentization, change notifications, data-binding, and data-flow systems.
- Acted as the chief implementation architect on several revisions of the compiler for the 'M' data modeling language, including a command line compiler, deployment tools, and Visual Studio language support with auto completion and real-time static analysis.

Microsoft - Distributed Transaction Coordinator (2005-2007)

Senior Software Development Engineer

- Assisted in the development of the 'System.Transactions' namespace of the .NET Framework, including lightweight transactions and promotable, single-phase transactions.
- Added support for running the Distributed Transaction Coordinator in Active-Active cluster configurations.

Microsoft - COM/DCOM/COM+ (1999-2004)

Software Development Engineer

- Maintained and enhanced COM, DCOM, and COM+, from Windows 2000 through Windows Server 2003.
- Assisted in the implementation of application compatibility hooks, which allowed Windows 95-era apps to run on Windows XP.

SKILLS

- Very good at learning and debugging new and unfamiliar systems
- Have written more than 1 Mloc in C# and C
- Have written more than 100 Kloc in C++ and Python
- Have written more than 10 Kloc in Clojure and Javascript
- Have written a small amount of Go, Elisp, and Ruby
- Can follow along with Objective C, Scheme, ML, Haskell, Erlang, and HLSL
- General familiarity with various build and management systems (nmake, gmake, ant, msbuild, git, mercurial, svn, perforce, &c.)