

Taylor Blau

https://ttaylorr.com

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Email: ttaylorr@github.com

EXPERIENCE

• GitHub, Inc.

Staff Software Engineer, Git Contrib

03/2022 —

Senior Software Engineer, Git Contrib

09/2020 — 03/2022

- Write release highlight posts on the GitHub Blog covering recent Git releases.
- Implemented “cruft packs”, an alternative to phasing out unreachable objects by storing them in a single pack.
- Implemented an on-disk format for reverse packfile indexes improving p99 fetch times by 33%, -1 TiB RSS savings.
- Implemented multi-pack reachability bitmaps, and geometric repacking within Git; improving average maintenance time by 50%.
- Deployed Bloom filters extension within `commit-graph` files.

Software Engineer, Git Contrib

01/2020 — 09/2020

- Contributor to the open-source version control system `git`. Co-maintainer of GitHub’s internal fork.
- Deploy new features from upstream Git at GitHub (e.g., partial clone, `commit-graph`, etc.)

Infrastructure Engineer, Git Storage

03/2018 — 01/2020

- Worked on GitHub’s deployment of Git, including:
 - * Merge and deploy new versions from upstream into GitHub’s fork.
 - * Contributed efficient multi-refspec traversal, repository alternate advertisement, `commit-graph` deployment at GitHub.

Infrastructure Engineer, Git Ecosystem

06/2016 — 03/2018

- Lead maintainer of Git extension Git LFS.
 - * Implemented retryable object transfers, repository migration tool, file locking feature, and streaming conversion filter.
 - * Hired and trained new contributors to Git LFS.

• Beam (now Mixer)

Developer

01/2015 — 06/2016

- Implemented RTMP protocol in Go to use in streaming video pipeline.

EDUCATION

• University of Washington

2017 — 2020

B.Sc. with Distinction in Computer Science, Mathematics Minor

Computer Science Coursework:

- CSE 341 – Programming Languages
- CSE 401 – Introduction to Compiler Construction
- CSE 421 – Introduction to Algorithms
- CSE 431 – Introduction to Theory of Computation
- CSE 446 – Machine Learning
- CSE 452 – Distributed Systems

Mathematics Coursework:

- MATH 126 – Calculus with Analytic Geometry III
- MATH 307 – Introduction to Differential Equations
- MATH 308 – Matrix Algebra with Applications
- MATH 309 – Linear Analysis
- MATH 324 – Advanced Multi-Variable Calculus I
- MATH 380 – Advanced Linear Algebra

Advisor: Dan Grossman

Thesis: *Verifying Strong Eventual Consistency in δ -CRDTs*

Honors: *Phi Beta Kappa, Cum Laude, Annual Dean’s List*

PUBLICATIONS

1. C. Nandi, J. R. Wilcox, P. Panckekha, **T. Blau**, D. Grossman, and Z. Tatlock. Functional programming for compiling and decompiling computer-aided design. *Proc. ACM Program. Lang.*, 2(ICFP):99:1–99:31, July 2018

SPEAKING

- Git Merge (Chicago, IL) 09/2022
Presented *Git at GitHub Scale*, an overview of how GitHub uses and contributes to Git to serve > 200M repositories.
- Git Merge (Brussels) 02/2017
Discussed an overview of changes made to the Git and Git LFS open-source projects to audience of version control experts.