

Brian Ho

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Work Experience

Google

New York, NY

SOFTWARE ENGINEER

Aug. 2017 - Present

- Software engineer on Docs and Drive Security.

Dropbox

San Francisco, CA

SOFTWARE ENGINEER

Mar. 2016 - Jul. 2017

- Brought Dropbox Paper, a collaborative document editor, from closed beta to open beta, and then finally to launch.
- Designed, implemented, and owned a variety of features targeted at business and enterprise users such as permanent deletion of user data, automatic purging of inactive accounts, and more granular document privacy options.
- Also worked on the Paper growth team where I managed large projects targeting quarter-level OKRs and designed experiments that drove a 15% increase in user retention.
- Mentored new hires to the growth team and drove an effort for better documentation and metrics logging.

Google

Cambridge, MA

SOFTWARE ENGINEER INTERN

May. 2015 - Aug. 2015

- Made the web more accessible as an intern on the Knowledge Graph team, a subset of Search concerned with curating the web's information into forms conducive to answering search queries.
- Implemented machine learning algorithms and engineered features to automatically extract structured data from PDF documents found on the web into the Knowledge Graph pipeline.

Facebook

Menlo Park, CA

SOFTWARE ENGINEER INTERN

May. 2014 - Aug. 2014

- Interned on the Public Content Ranking team, exploring better algorithms to combat fake articles shared by users on News Feed.
- Also experimented with usability and chaining of suggested native videos.

Projects

Physically Based Real-Time Renderer

San Francisco, CA

[HTTPS://GITHUB.COM/BRKHO/REAL-TIME-PBR](https://github.com/brkho/real-time-pbr)

Aug. 2016 - Dec. 2016

- Implemented an OpenGL physically based graphics engine in C++11 inspired by "Real Shading in Unreal Engine 4" (Karis 2013) and "Physically-Based Shading at Disney" (Burley 2012).
- In addition to basic functionality like textures, normal mapping, and shadows, the engine also features microfacet BRDFs, image based lighting, and an importer/exporter for a custom scene format optimized for efficient loading of model and material data.

Rust 3D Game Engine

Baltimore, MD

[HTTPS://GITHUB.COM/BRKHO/3D-ENGINE-RUST](https://github.com/brkho/3d-engine-rust)

Dec. 2015 - Mar. 2016

- Implemented a cross-platform 3D game engine using the Rust OpenGL bindings and glutin, a pure-Rust alternative to GLFW.
- Developed a rendering backend that supports Blinn-Phong shading, textures, and normal mapping.
- Wrote a thin Entity-Component-System around the core engine to encourage design patterns in a fashion idiomatic to Rust.

Skills

Operating Systems: Mac OS X, Windows, Linux

Programming Languages: Python, C, C++, Javascript/Typescript, Rust, Java, HTML, CSS

Education

The Johns Hopkins University

Baltimore, MD

B.S. IN COMPUTER SCIENCE WITH HONORS

Aug. 2012 - Dec. 2015

- Courses: Security and Privacy, Computer Graphics, Video Game Design, Operating Systems, Compilers, Programming Language Theory, Natural Language Processing, AI, Machine Learning, Machine Translation, Parallel Programming, and Algorithms