

Merry Ember Mou

mmou.github.io

[email]

[phone]

EXPERIENCE

Keybase

Software Engineer

San Francisco, CA

Oct 2019 - present

Developing an encrypted chat platform. Adding support for encrypted key-value stores to bot libraries, implementing contact privacy settings, working on Keybase-backed SSH CA.

Expansive, Inc.

Software Engineer

San Francisco, CA

Sep 2017 - July 2019

Contributed to a Internet asset discovery platform on a range of back-end projects, including network scanning infrastructure, ETL pipelines, microservice deployments, and internal tool full-stack development.

Cloud Module Beta Prototyped and iteratively optimized performance of cloud IP scan data pipeline from runtimes of several days to an hour.

Contextual Scanning Lead project investigation and implementation to improve scan accuracy of global IPv4 space. Designed system to selectively re-scan previously responsive endpoints, with minimal increases in scan duration and redundant data volume.

MIT Center for Civic Media

Student Researcher, CivilServant

Cambridge, MA

May 2016 - Sep 2017

Built and evaluated software infrastructure that facilitates participatory experimentation of online moderation policies. Designed reddit bot systems to administer randomized trials, automate data collection, and analyze experiment data.

MIT Internet Policy Research Initiative

Student Researcher

Cambridge, MA

Feb 2016 - May 2017

Implemented and studied Model Based Metrics (MBM) for network speed measurement. Built test stream generators and diagnostic tests that determine an Internet path's expected ability to satisfy a given target performance.

EDUCATION

Massachusetts Institute of Technology (MIT)

Master of Engineering in Computer Science. GPA 5.0

B. S. in Computer Science. GPA 4.8

Cambridge, MA

Jun 2017

Jun 2016

PROJECTS

threshold-OPAQUE Implementation of OPAQUE, an augmented password-authenticated key agreement protocol, and its threshold instantiation, in Rust. *(2019)*

rpeere Peer-to-peer secure file transfer command-line utility that uses the BitTorrent DHT for peer discovery and PAKE for key agreement. *(2019 - present)*

DMCA notices on Twitter Quantitative study of the effects of automated takedown notices on online free speech. *(2017, 2019)*

alertmanager-signal Alertmanager integration to send Prometheus alerts via Signal for monitoring of home Kubernetes cluster. *(2019)*

INTERNSHIPS

MongoDB Log redaction of sensitive query data. *(Jun - Aug 2015)*

Twitter Microservice to fetch, process, and notify followers of AMA events. *(Jun - Aug 2014)*