

# Hannah Kolbeck

Lead Software Engineer

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Portland, Oregon, USA

github.com/hkolbeck

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## Technology

**Primary programming languages:** Java, Kotlin, JavaScript

**Experience with:** C, C++, Rust, Scala, Perl, Bash, Go, Python, Ruby

**Web frameworks:** React

**Databases:** Postgres, MySQL, HBase, BigTable, Dynamo, Aurora, FireStore

**Infrastructure:** ZooKeeper, Kafka, Cloud Pub/Sub, Kinesis, Hadoop, FusionAuth

**Cloud Environments:** GCP, AWS

## Experience

**Alt-Text.org • Accessibility**

March 2021 - Present

### Founder

- Created and ran @AltTxtReminder, a Twitter service for more than 20k people helping them remember to include alt text on images. The success of the service prompted Twitter to incorporate it into the platform in 2022
- Designed and created a system allowing users to search a database of alt text by image
- Created and ran @AltTextUtil, a Twitter service offering a variety of tools around alt text

**Stroom • Augmented Reality**

August 2020 - February 2022

### Senior Platform Engineer L5

- Team expert on the authentication sub-system
- Helped plan and deliver several major new features and improvements
- Mentored and advocated for three junior engineers, all of whom received promotions
- Acted as liaison to support and special projects teams

**Airship • Messaging**

January 2013 - March 2020

### Lead Delivery Engineer

March 2017 - March 2020

- Led a team of five engineers to make a fundamental change to the backend processing model. The project required changes to almost every service in the stack
- Revamped hiring process resulting in increased applicant diversity and improved applicant information
- Worked with major customers' marketers and engineers to integrate their processes
- Mentored multiple engineers from entry-level positions into senior engineers.
- Helped plan and execute live migration of the entire stack off managed hardware and into the cloud
- Used BigQuery, Dataflow, and Map/Reduce to debug one-in-a-billion issues spanning multiple services and databases
- Identified and helped alleviate multiple inefficiencies in the stack, resulting in savings of more than \$45k/mo

## Senior Data Engineer

March 2015 - March 2017

- Received three top quarterly performer awards as well as the annual award for greatest individual contribution to company revenue
- Envisioned, designed, and led a team to implement a new product allowing customers access to their raw data streams
- Drafted the company Java style guide

## Data Engineer

March 2014 - March 2015

- Envisioned, designed and implemented a novel caching library now used throughout Airship's stack
- Contributed code to Datacube, a high-cardinality event counting framework
- Maintained HBase clusters handling millions of database operations per second
- Maintained a Kafka cluster handling more than 250k events per second
- Wrote MapReduce jobs processing terabytes of data

## Junior Data Engineer

January 2013 - March 2014

- Designed and implemented REST APIs to expose metrics to front-end systems and directly to customers
- Maintained and extended event counting systems using Kafka and HBase

## Portland State University

September 2010 - January 2013

### Computer Science Tutor Coordinator

- Led a team of seven tutors serving a population of more than a thousand undergraduate and graduate students
- Taught sessions on a variety of topics for classes from one to twenty students
- Worked with faculty to provide \*nix training to all incoming CS students

## Education

**Bachelor of Science, Computer Science** Portland State University, 2009 - 2013

President, Portland State ACM, 2011 - 2013

Jr. Sysadmin, Computer Action Team 2010 - 2013

## Side Projects

- [kdl4j](#) - The official Java library for the KDL document language
- [SwearJar](#) - A browser extension for helping people clean up their vocabulary

## Patents

- Hannah Sylvia Hoffman Kolbeck, Michael Shane Robert McHugh, Michael James Herrick, Adam C. Lowry. 2019. [Mobile event notifications for network enabled objects](#). U.S. Patent 10200486, filed July 5, 2016, and issued February 5, 2019
- Hannah Sylvia Hoffman Kolbeck, Adam C. Lowry, Michael James Herrick. 2018. [Mobile event notifications](#). U.S. Patent 10084865, filed February 26, 2016, and issued September 25, 2018