

# Micah Wylde

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## Education

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### Wesleyan University

B.A. WITH HONORS IN COMPUTER SCIENCE

Middletown, CT

May 2012

## Work Experience

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### Sift Science

TECH LEAD, DATA INFRASTRUCTURE

San Francisco, CA

2016-present

- Leading team of 12 software engineers and SREs with responsibility for building a highly-scalable, reliable, and low-latency infrastructure for producing thousands of fraud scores per second.
- Helped implement a replica HBase cluster with automated failover mechanism, which has prevented customer impact during cluster failures
- Integrated circuit-breaking into the HBase, producing a substantial reduction in downtime

TECH LEAD, WORKFLOWS

2016

- Led team of 5 to develop Sift's Workflows product, which allows our often non-technical customers to define workflow rules that automatically respond to fraud events without writing code. Today most Sift customers rely on Workflows, making hundreds of automated decisions per second.

SOFTWARE ENGINEER

2014-2015

- Developed and launched Sift's Device Fingerprinting product, used today by some of the largest websites on the internet
- Led the backend migration of Sift's web console from a thick Rails app to an API-driven SPA using DropWizard
- Redesigned Sift's ElasticSearch infrastructure to improve scalability and query performance

### Quantcast

SOFTWARE ENGINEER

San Francisco, CA

2012-2014

- Built a real-time measurement platform that handles over 200,000 requests per second
- Helped scale a real-time ad bidding platform to 500,000 auctions per second
- Developed features on a high-performance C++ webserver for web measurement and ad targeting

### Twilio

ENGINEERING INTERN

San Francisco, CA

Summer 2011

- Built a distributed load testing tool for testing Twilio Client, which provides an API for building VoIP apps, with thousands of concurrent calls to determine the maximum number of calls a single server could support without audio degradation.

### Washington University CS Department REU

RESEARCHER

St. Louis, MO

Summer 2010

- Designed and evaluated real-time scheduling algorithms for utility-aware non-preemptable, stochastic task sets using machine learning in C++. Worked under Dr. Chris Gill.

### Instructional Media Services, Wesleyan University

PROGRAMMING MANAGER

Middletown, CT

2008-2012

- Maintained classroom multimedia technology and academic computing labs. Programmed and designed AMX-based integrated controllers and touch panels. Implemented a touchscreen-based classroom control system in ruby and javascript. Managed student programmers.

## Skills

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- **Languages:** Java, Scala, JavaScript, Ruby, Rust, Python, C++
- **Tools:** HBase, Kafka, ElasticSearch, PostgreSQL, Envoy, AWS, MapReduce, Spark
- **Specialities:** Distributed systems, Databases, ML Infrastructure, large-scale data processing

## Talks

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### Reliable Machine Learning on HBase

APPLIED MACHINE LEARNING @ SCALE MEETUP

Seattle, WA

July 2017

### Highly-Available HBase

HBASECON 2017

Mountain View, CA

May 2017

### API-driven development at Sift Science

API CRAFT MEETUP

San Francisco, CA

October 2014

## Publications

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### The struggle for safety: effectiveness of caterpillar defenses against bird predation

OIKOS

2015

### Scalable Utility Aware Scheduling Heuristics for Real-time Tasks with Stochastic Non-preemptive Execution Intervals

23RD EUROMICRO CONFERENCE ON REAL-TIME SYSTEMS

2011