

Matthew R. Weiden

CONTACT INFORMATION

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INTERESTS

engineering management, project management, product development flow, data mining, machine learning

PROFESSIONAL EXPERIENCE

SoundCloud Ltd. Berlin, Germany

Content Identification Team: Engineering Manager

July 2016 - Present

Leads the Content Identification Team in building audio fingerprinting systems and copyright services. Focuses on supporting engineers, making business metrics visible, product development flow, and project management.

- As a hiring manager, built up a team from one engineer to five
- Holds weekly one-on-one meetings with reports and writes feedback focused on performance review and professional development
- Led the implementation of Agile practices including Kanban, Grooming, WIP limits, and frequent retrospectives
- Redesigned the team's KPIs to better monitor its impact on company-wide KPIs and cost
- Developed a Jira integration used by 18 different teams at SoundCloud to monitor Lead Time, Cycle Time, bugs, cumulative flow, and code inventory
- Developed a set of [simple visual controls](#) to help engineering managers improve their project management
- Wrote a report with recommendations on optimizing product development flow that are being adopted company-wide; their adoption has correlated with a 30% reduction of SoundCloud's code inventory
- Writes technical reports for legal, rightsholder management, and funding purposes
- Manages contracts and integrations with Audible Magic, a third party contractor

SoundCloud Ltd. Berlin, Germany

Trust, Safety, & Security Team: Backed Engineer (level 3/5)

November 2012 - June 2016

Worked with security engineers in building anti-spam and anti-abuse systems that leverage data science and defensive network security strategies.

- Implemented microservices and batch jobs for detecting spam, platform abuse, and terms of service violations
- Trained machine learning models and designed experiments for validating their performance
- Participated in risk-management exercises for estimating the company's risk liability
- Redesigned the team's KPIs to monitor the impact of spam and abuse on company-wide KPIs and cost

HRL Laboratories Malibu, California

Information and Systems Sciences Lab: Research Vendor

June 2011 - October 2012

Implemented machine learning software for an EEG-based brain-computer interface and conducted behavioral experiments for the [CT2WS](#) project led by the Defense Advanced Research Agency (DARPA).

University of California, Santa Barbara

Office of Governmental Relations: Intern

December 2011 - June 2012

Helped organize higher education advocacy events, analyze legislation, and promote the University of California's legislative program.

Teaching Assistant

Intermittent, January 2011 - June 2012

Led sections on parallel computing and introductory programming. Duties included leading sections, holding office hours, grading, and writing course materials.

- The parallel computing courses covered message passing using MPI and multithreading using Intel Cilk Plus at both undergraduate and graduate levels
- Introductory programming helped introduce fundamental computer science concepts to first year engineering students using MatLab

University of California, Los Angeles

Computational Learning and Vision Lab: Research Assistant

Spring 2008 - Summer 2010

Worked with professors Hongjing Lu and Alan Yuille in developing behavioral experiments and implementing machine learning algorithms that model human and rat behavior.

Reasoning Lab: Research Assistant

Spring 2007 - Spring 2008

Worked with Mimi Liljeholm, a postdoctoral researcher writing software in Matlab and Java for use in experiments and assisting in experimental design.

PUBLICATIONS

Lu, Weiden, & Yuille (2009), "Modeling the spacing effect in sequential category learning." *Advances in Neural Information Processing Systems 22 (NIPS 2009)*

Weiden, Khosla, & Keegan (2012), "Electroencephalographic detection of visual saliency of motion towards a practical brain-computer interface for video analysis." *International Conference on Multimodal Interaction 2012*

OPEN SOURCE

[Streaming Parallel Decision Tree](#): decision tree implementation with online learning

[Sketchy](#): an event processing network for spam detection and prevention

[Alyssa](#): A simple LISP interpreter

COMPUTING

Languages Scala, Python, C/C++, Bash, MatLab, HTML/CSS, MySQL

APIs Spark, Crunch, Hadoop, Numpy/Scipy/Pandas, Twitter Finagle

Platforms Kubernetes, Docker

EDUCATION

University of California, Santa Barbara

M.Sc. Computer Science

September 2012

University of California, Los Angeles

B.S. Cognitive Science

September 2009

B.A. Art

September 2009

PRACTICAL INFORMATION

Citizenship US National

Languages Native English Speaker, German (C1)