

# Sam Havens

**Machine Learning Engineer & Manager** | Portland, Oregon | [linkedin.com/in/samhavens](https://www.linkedin.com/in/samhavens) | [samhavens@gmail.com](mailto:samhavens@gmail.com) | 818.590.0484

Experience across the stack, specializing in NLP research, engineering, and management.

## WORK EXPERIENCE

### **Writer, Director of NLP Engineering** Sep 2020 - Current

Writer is an AI writing assistant used by brands like Twitter, Intuit, and Accenture. The NLP team uses a microservice architecture based on Kubernetes, FastAPI, HuggingFace Transformers, NVIDIA Triton, and ONNX.

- Responsible for NLP from research to operations, including >25 microservices
- Trained an encoder/decoder Grammar Error Correction model using novel synthetic data techniques, which outperformed an open-source baseline by 130%
- Used NVIDIA Triton and ONNX to serve a character-based transformer spelling correction model while keeping inference latencies below 300ms at 50 req/s

### **Qordoba, Director of Data Science** Feb 2019 - Sep 2020

- Reduced mean service latency from >1.5s to <300ms.
- Grew team from 2 to 6, while improving onboarding effectiveness (time to first commit: from weeks to < 1 day).
- Implemented classification and seq2seq models in spaCy, Flair, and Marian with aggressive latency requirements.
- Responsible for all ML Ops. Made models available using modern async/await Python, and Docker/Kubernetes/PubSub, with some help from Bash and Jenkins.

### **Carlabs, Chief Technology Officer** May 2016 - Jan 2019

- Created a suite of tools for automotive OEMs and dealers to manage chatbots for their brand on web, chat, and voice platforms.
- Used Docker/Kubernetes to operate services written in Node.js, Elixir, and Python, and models made in FastText and TensorFlow.
- Engineering team grew from 4 to 16 during my tenure. Established a strong engineering culture of testing, code reviews, pair programming, and mentorship.

### **Carlabs, Software Engineer** Mar 2015 - May 2016

- Created a car comparison shopping tool using React, ES6, Webpack, and MaterialUI.
- Built a conversational agent with a Node.js/Docker backend and NLP services in Python using FastText, NLTK, and Gensim.

### **Topanga Mountain School, Board Member and Teacher** Aug 2007 - Current

- Full-time math and science teacher from 2007-2014.
- Current board member.

### **Revmaker, Software Engineer** Apr 2014 - Mar 2015

- Implemented a probabilistic lead-scoring model and built an MVC lead generation web app with a LAMP backend and d3.js + jQuery frontend

## EDUCATION

### **California State University, Northridge, Master of Science Mathematics** 2011 - 2013

- Bianchi Outstanding Graduate Student research award, and IRIS Fellowship recipient.

### **UC Santa Barbara, Bachelors Physics** 2002 - 2006

- LEAPS Fellow