

Justin Cosentino // <https://cosentino.io> // justin@cosentino.io

RESEARCH INTERESTS

Machine learning, genomics, deep learning, uncertainty, robustness

EDUCATION

Tsinghua University

Sep 2018 - Aug 2020

MSc Computer Science

- Advisor: Professor Jun Zhu
- Thesis: On the Robustness of Deep Learning (Tsinghua Outstanding Thesis Award)
- GPA: 3.90/4.00

Swarthmore College

Sep 2011 - Jun 2015

BA Computer Science with a minor in Mathematics

- GPA: 3.89/4.00 in major, 3.72/4.00 overall
- Member of Sigma Xi, The Scientific Research Society
- Member of SCCS, The Swarthmore College Computer Society

INDUSTRY EXPERIENCE

Google Health Genomics

Sep 2020 - Present

Software Engineer

- Applying machine learning to better understand the genetic basis of disease

Uber Advanced Technologies Group

Jan 2020 - Jun 2020

Research Intern

- Advisor: Professor Raquel Urtasun
- Fundamental machine learning and AI research for autonomous vehicles

Google Brain Genomics

Jul 2019 - Oct 2019

Software Engineering Intern

- Developed novel machine learning techniques for genomic discovery (GWAS); patent application submitted and publication in review
- Built an end-to-end GWAS pipeline for running large scale experiments on ~20k machines and refactored an experiment configuration system to reduce technical debt

Tsinghua Statistical Artificial Intelligence and Learning Lab (TSAIL)

Sep 2018 - Aug 2020

Graduate Researcher

- Advisor: Professor Jun Zhu
- Exploring uncertainty and robustness in deep learning and reinforcement learning

Salesforce

Jul 2015 - Jun 2018

Senior Software Engineer

- Received the 2018 "President's Award", the most prestigious engineering award at the company, from Salesforce's President of Technology for impact and leadership (top <1%)
- 2018 Technology and Product Spring Hackathon Winner for solo project; led to multiple patent applications and the creation of a dedicated team to productionize the idea
- 2018 and 2016 Technology and Product All Star Nominee
- Developed new features and re-architected existing functionality for the #1 (Search) and #13 (Lookups) most-used components on the Salesforce platforms
- Led performance analysis and implementation efforts that reduced client-side search component render time by 24-54% and backend search API calls by 30%
- Scrum Master for a team of 7 hybrid software engineers; implemented processes that reduced the number of open, high-priority bugs by over 50% while maintaining high feature velocity

Salesforce

May 2014 - Aug 2014

Software Engineering Intern

- Shipped production-ready web components for the Salesforce1 Platform release

National Institute of Standards and Technology (NIST)

May 2013 - Aug 2013

Undergraduate Research Fellow

- Researched and presented a novel, closed-form solution for extrinsic lidar calibration for use with mobile robotics
- Developed ROS packages running dead reckoning and simultaneous localization and mapping algorithms for use with mobile robotics

PUBLICATIONS // [Google Scholar](#)**Conference**

1. **J. Cosentino** and J. Zhu. *Generative well-intentioned networks*. In *Advances in Neural Information Processing Systems 32 (NeurIPS)*, 2019.

Workshop

2. {**J. Cosentino**, F. Zaiter}, D. Pei, and J. Zhu. *The search for sparse, robust neural networks*. In the *Workshop on Safety and Robustness in Decision Making at Advances in Neural Information Processing Systems 32 (NeurIPS)*, 2019.

{ - } denotes equal contribution

TEACHING & GRADING

Swarthmore College:

Sep 2011 - Jun 2015

Teaching Assistant

- Introduction to Computer Science, Spring 2013. Multiple instructors.
- Computer Systems, Fall 2013. Instructor: Professor Tia Newhall.
- Introduction to Computer Science, Spring 2014. Multiple instructors.
- Introduction to Computer Science, Fall 2014. Multiple instructors.

Grader

- Linear Algebra, Spring 2013. Instructor: Professor Scott Cook.
- Linear Algebra, Fall 2014. Instructor: Professor Scott Cook.
- Artificial Intelligence, Spring 2015. Instructor: Professor Lisa Meeden.
- Computer Systems, Spring 2015. Instructor: Professor Kevin Webb.

TECHNICAL SKILLS // github.com/justincosentino

- Languages: Python, JavaScript, Java, HTML, CSS, Bash
- Machine Learning: TensorFlow, PyTorch, scikit-learn, NumPy
- Web: Lightning, Node.js, Express.js, Webpack, Sass, Jest, AngularJS, Flask, Cordova