# Zachary Horvitz

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#### **FDUCATION**

#### **BROWN UNIVERSITY**

MASTER'S IN COMPUTER SCIENCE GPA 4.0/4.0

A.B. IN COMPUTER SCIENCE A.B. IN ANTHROPOLOGY GPA 3.96/4.0

## SKILLS

#### **PROGRAMMING**

Python • Scala • Matlab • LATEX Java • C/C++ • SQL • Javascript

#### **TOOLS**

Tensorflow • PyTorch • Keras • Caffe OpenCV • AWS Mechanical Turk Google Cloud • Pandas • Numpy Web-scraping • D3 • Scikit-Learn AWS EC2, S3, DynamoDB • CPLEX

## TEACHING

## **DEEP LEARNING** | BROWN HEAD TA (2019) / TA (2018)

- Graduate Head TA for Daniel Ritchie's 360+ person class, managed staff of 32 students
- Wrote projects from CNNs, Transformers to Policy Grad.
- Oversaw migration to Tensorflow2.0, addition of conceptual questions, and introduction of new assignments

## **COMP. LINGUISTICS** | BROWN TEACHING ASSISTANT (2019)

- Undergraduate TA for Eugene Charniak's seminar
- Taught parsing, NMT, contextual embeddings

## **AWARDS**

Best in General Anthropology (2019) Ntl. Merit Commended Scholar CS2951-O Transport Logistics, 1st Place CS1400 TRON Competition, 2nd Place

## **ACTIVITIES**

Senior Staff Writer, Brown Noser Brown University's Satirical Newspaper thenoser.com/staff/Zachary-Horvitz SAT Math Tutor

BEAM, After-School Mentoring

## **EXPERIENCE**

## INTELLIGENT ROBOT LAB | Brown University

#### GRADUATE RESEARCH

Spring 2020 - present | Providence, RI

- Advised by George Konidaris
- Ongoing research on leveraging graph priors for multi-task reinforcement learning in both continuous and discrete environments.

#### **RLAB** | Brown University

#### **GRADUATE RESEARCH**

Fall 2019 - Summer 2020 | Providence, RI

- Advised by Michael Littman
- Developed tools for automatically retrieving relevant real-world text context for news stories
- Demonstrated successful transfer-learning from abstractive summarization to satire generation
- Author, Context-Driven Satirical Headline Generation, ACL 2020 FigLang Workshop (Talk)

#### Al2 | Allen Institute for Artificial Intelligence Research Intern

Summer 2018 | Seattle, WA

- Advised by Yejin Choi, Maarten Sap, Antoine Bosselut @ UW
- Investigated neural networks for common-sense story generation
- Integrated pipeline for extracting sequences of events from text, collating with Event2Mind corpus
- Developed ELMo based entity-augmented neural architecture that updates embeddings based on mental state inference for better generations

#### Spring/Summer 2015 | Seattle, WA

- Advised by Santosh Divvala and Ali Farhadi
- Coauthor, ECCV paper: "FigureSeer: Parsing Result-Figures in Research Papers"

## THE DANIEL LAB | University of Washington

#### RESEARCH INTERN

Summer 2014 | Seattle, WA

• Developed and integrated OpenCV-based software for moth control in VR

## **EMPOR.CO** | START UP

#### FOUNDER, FULL-STACK DEVELOPER

Summer 2015 - Spring 2017 | Providence, RI

• Mobile e-commerce project, clothing recommender engine

## **BPR** | Brown Political Review Data Board Associate Director

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Winter 2016 - Fall 2018 | Seattle, WA

• Directed projects by team of 10; infographics and data-driven articles

## **ACLU** | ACLU of Massachusetts

## INTERN WITH TECH FOR LIBERTY TEAM

Summer 2017 | Boston, MA

- Analyzed newly released criminal policing data from BPD, Massachusetts
- Experience with criminal justice sector, data analysis, NLP, data visualization
- Built internal tools to measure racial disparities in lower-level arrests, stop-and-frisk