M. Parker Seegmiller

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Education

PhD Computer Science, *Dartmouth College, Hanover, NH*
September 2021 - Present
Relevant Coursework: Artificial Intelligence, Machine Learning, Natural Language Processing

BS Statistics: Data Science, *Brigham Young University, Provo, UT*
Minor in Computer Science, Minor in Mathematics
August 2017 - April 2021
GPA: 3.63/4.00, *GRE: V:* 162, *Q:* 165, *W:* 4.0
Clubs: Vice President Association for Competitive Programming, Vice President Data Science Club
Relevant Coursework: Deep Learning, Artificial Intelligence, Machine Learning, Natural Language Processing, Big Data Science, Inferential Statistics, Algorithms, Advanced Programming, Data Structures, Discrete Structures, Computation Theory, Probability, Advanced Linear Algebra, Calculus, Competitive Programming

Publications

- (UNDER REVIEW) Seegmiller, P., Gatto, J., Stankovic, J., & Preum, S. (2022). ActSafe: Predicting Violations of Medical Temporal Constraints for Medication Adherence. 2022 Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies.
- Gatto, J., Seegmiller, P., Johnston, G., & Preum, S. (2022). Identifying the Perceived Severity of Patient-Generated Telemedicine Queries Regarding COVID: Developing and Evaluating a Transfer Learning Based Solution. 2022 Journal of Medical Internet Research.
- Masters, T., Nayakankuppam, D., Yu-Buck, G., & Seegmiller, P. (2022, February 18-20). Consumption as Therapy: Individual and Country Factor effects on Stress and Optimism During a Sustained Stressor [Paper Presentation]. 2022 AMA Winter Academic Conference, Las Vegas, Nevada, USA.

Experience

Teaching Assistant, *Dartmouth College Department of Computer Science*
September 2021 - Present

- *Courses Assisted:* Android Programming (Dr. Xing-Dong Yang, Fall 2021), Discrete Mathematics (Dr. Hsien-Chih Chang, Winter 2022), Machine Learning (Dr. Sarah Masud Preum, Spring 2022)

Data Science Intern, *Aetna, a CVS Health Company*
Analytics and Behavior Change - Payment Integrity Team
June 2020 - August 2020

- Personally developed machine learning model for predicting healthcare provider abusive upcoding on inpatient DRG claims, projected to save up to $1,000,000 each month via audit recommendations
- Presented original research for VP of Aetna, preparing web application for live model prediction
- Engineered 100+ features for abusive upcoding model

Teaching Assistant, *Brigham Young University Computer Science Department*
January 2021 - April 2021

- Designed homework assignments and programming labs for a new Computer Science course, CS 201R Intro to Data Science
- Led weekly programming help sessions of up to 30 students

Research Assistant, *Brigham Young University Computer Science Department*
December 2019 - December 2020

- Worked independently under Dr. Quinn Snell to build end-to-end neural network for classification of online news articles as "fake"
- Engineered unique features from news article URL, webpage metadata, and article body using custom-built word/character embeddings and NLP models
- Shipped model to flask server, built chrome extension for fake news article detection

Research Assistant, *Brigham Young University Marketing Department*
May 2019 - May 2020

- Statistical researcher under Tamara Masters, Ph.D.
- Provided data modeling, analysis, insight, and creativity for 8+ research projects
- Paper accepted:
    - "Consumption as Therapy: Individual and Country Factor effects on Stress and Optimism During a Sustained Stressor" (Tamara Masters, DJ Nayakankuppam, Grace Yu-Buck and Parker Seegmiller), American Marketing Association Winter Academic Conference
- *Projects included:*
    - Topic modeling in healthcare patient text responses about lying to their healthcare provider
    - Brand review analysis using semantic document embeddings
    - Analysis of lying on computer-based surveys using mouse-tracking data and machine learning model
    - Consumer decision-making analysis using EEG data

CS Instructor, *Juni Learning, Inc.*
July 2019 - August 2021

- Weekly mentored 20+ students aged 7-18 in Scratch, Python, and Java
- Trained 8+ students in common competitive programming algorithms and techniques, helping them to prepare for the USA Computing Olympiad bronze, silver, and gold divisions

Teaching Assistant, *Brigham Young University Statistics Department*
January 2019 - December 2019

- Assisted Drs. Gilbert Fellingham and Lynne Nielsen in teaching 3 large introductory statistics courses covering probability, hypothesis testing, linear regression, R programming, etc.
- Biweekly prepared and led lectures of 40+ students
- Graded 200+ homework assignments on statistical inference and hypothesis testing

Research Assistant, *Brigham Young University Statistics Department*
September 2018 - April 2019

- Collected, managed, and analyzed 5+ years of match data for BYU women's and men's tennis teams
- Led team of 11 interns in data collection, project ideation, and statistical analysis processes
- Built and presented player-specific probabilistic models of serving percentages by service position and point outcome, presenting research insights to head coaches

Research Intern, *Diathrive Health*
March 2018 - August 2018

- Designed and oversaw user study involving 70+ customers
- Determined user diabetes testing supply preferences via statistical analysis

Lithuanian Instructor, *Missionary Training Center*
September 2017 - January 2018

- Trained 20+ volunteers in groups of 1-10 in Lithuanian language and study habits

Volunteer Work

Refugee Youth Mentor, *Catholic Community Services of Utah*
June 2019 - June 2020

- Met with newly-arrived (< 1 year in U.S.) teenage refugee for 2+ hours weekly, assisting in assimilation process via English tutoring, cultural activities, and mentorship
- Participated in quarterly trainings on topics ranging from English as a second language tutoring to comprehensive gang prevention

ESL Elementary School Reading Tutor, *Granite School District*
August 2018 - December 2018

- Tutored elementary school students ages 7-10 in reading and writing English as a second language

Volunteer Missionary, *Church of Jesus Christ of Latter-day Saints*
Lithuania
July 2015 - July 2017

- Developed advanced proficiency in spoken and written Lithuanian
- Prepared and presented quarterly trainings to groups of 20+ volunteers

Skills

Programming: Python, Java, Kotlin, C++, SQL, R
Languages: English (Native), Lithuanian (Advanced)
Methods: Natural Language Processing, Machine Learning, Statistical Inference