

# Bora Uyumazturk

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## EDUCATION

**Stanford University**, Stanford, CA

*Master of Science in Computer Science (Specialization in Artificial Intelligence)*

Sept. 2019 – Mar. 2020

GPA: 4.09 / 4.00

Selected Courses: CS229 (Machine Learning), CS228 (Probabilistic Graphical Models), CS231N (Convolutional Neural Networks for Visual Recognition), CS161 (Design and Analysis of Algorithms), CS110 (Principles of Computer Systems)

**Stanford University**, Stanford, CA

*Bachelor of Science in Mathematics*

Sept. 2015 – Jun. 2019

GPA: 4.03 / 4.00

Honors: Phi Beta Kappa

Selected Courses: MATH205A (Graduate Real Analysis), MATH205B (Graduate Functional Analysis), ECON180 (Honors Game Theory), MATH154 (Algebraic Number Theory), MATH148 (Algebraic Topology)

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## WORK EXPERIENCE

**Viaduct**, Menlo Park, CA

*Machine Learning Intern*

Mar. 2020 – Present.

- Formulated and implemented time-varying cox proportional hazards model for vehicle predictive maintenance.
- Leveraged PySpark and Tensorflow for large scale data-processing and model development.
- Adapted neural architectures from NLP to develop contextualized feature embeddings.

**deeplearning.ai**, Palo Alto, CA

*Head Teaching Assistant*

Jun. 2019 – Apr. 2020

- Head teaching assistant for [AI for Medicine Specialization](#) on Coursera.
- Developed assignments and lessons which have reached more than 10,000 students.
- Covered topics such as CNNs, U-Net, survival analysis, Cox proportional hazards, random forests, among others.

**Stanford Machine Learning Group**, Palo Alto, CA

*Research Assistant*

Sept. 2018 – Sept. 2019

- Worked on projects applying machine learning techniques to problems in healthcare.
- Developed and validated models for classification and perception using deep learning.
- In addition to research, participated in weekly reading groups covering healthcare, statistics, and AI.

**Cubist Systematic Strategies**, New York, NY

*Research Analyst Intern*

Jul. 2018 – Sept. 2018

- Modeled bid/ask spread dynamics around economic events using Gaussian Processes. Applied combinatorial optimization techniques (simulated annealing, greedy algorithms) to analyze relationships and cluster entities in the foreign exchange market.

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## Research Projects and Publications

**A Deep Learning Assistant for Cancer Subtype Classification (published in [npj Digital Medicine](#))** Sept. 2018 – Apr. 2019

- Developed and validated a deep learning powered diagnostic assistant to help pathologists differentiate between subtypes of liver cancer using digital pathology slides. Created python library for sampling from annotations of whole slide pathology images. Presented poster at [Frontiers of AI Assisted Care Symposium](#). Accepted to present extended abstract at ML4H conference at NIPS 2019.

**Functional Analysis of Wearable Data**

Feb. 2020

- Compared different methods (such as the discrete fourier transform, kmeans clustering, PCA, and NMF) for extracting functional information from continuous wearable accelerometer data. Validated methods on downstream task of predicting resting heart rate of monitored individuals. Implemented parallelized ETL pipeline for processing 20 GB of accelerometer data at second-by-second resolution. Code available at [github.com/bora-uyumazturk/functional\\_wearable\\_analysis](https://github.com/bora-uyumazturk/functional_wearable_analysis).

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## ORGANIZATIONS

**Stanford Chaparral**, Palo Alto, CA

*Art Director*

Sept. 2016 – Jun. 2018

- Served as art director for Stanford's oldest humour magazine.
- Published various cartoons and written pieces and provided constructive criticism on pieces submitted by others.

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## SKILLS & OTHER

**Programming Languages and Packages:** Python, PySpark, Tensorflow, R, C++, C, Java, Matlab

**Human Languages:** Turkish, Spanish

**Interests:** Cartooning, Translating Poetry, Backgammon, Turkish Coffee