KAAN DONBEKCI

donbekci@stanford.edu ⋄ kdonbekci@GitHub

Stanford, CA ⋄ New York, NY ⋄ Istanbul, Turkey

EDUCATION

Stanford University *2016 - Present*

B.S. in Symbolic Systems and Biology, expected graduation in June 2020

Concentrations in Artificial Intelligence and Ecology

COURSEWORK

Convolutional Neural Nets for Visual Recognition	Ecological Dynamics: Theory and Applications
Artificial Intelligence: Principles and Practices	Natural Language Understanding
Computer Organization and Systems	D.media - Design that Matters
Design and Analysis of Algorithms	Psycholinguistics
Machine Learning	Brain Networks

WORK EXPERIENCE

The Pervasive Wellbeing Technology Lab June 2018 - October 2018

Computer Science Research on Human Computer Interaction <u>Github</u> <u>Lab website</u>

· Performed independent research under Dr. Paredes on effects of display color on stress levels.

· Built Python APIs to simultaneously command IoT devices used across the lab, such as Philips Hue lights, Moodo scent devices and Subpac wearable audio gear, reducing development time for researchers.

· Developed interactive programs with Python to automate n-back task and data collection through Zephyr BioHarness (heart rate, breathing rate, HRV).

· Conducted test studies, producing a final experiment and pilot results over 10 weeks.

The Gordon Lab December 2017 - April 2018

Biology Research on Collective Behavior <u>Lab website</u>

· Worked in Prof. Gordon's lab, deriving insights on collective behavior through investigating the effects of dopamine on ant foraging activity.

· Processed videos with MATLAB to detect ant interactions and movement on natural habitat.

· Manually labeled over 2000 ant interactions from field recordings.

· Presented progress and novel observations of ant behavior in weekly lab meetings.

HIGHLIGHTED PROJECTS

Olympus Learning Algorithm Feb 2019 - Present

Computer Science & Biology <u>GitHub</u>

· Developing a novel learning algorithm, driven by my learnings from ecology, computer science, and genetics.

· Implementing Prof. Stanley's NEAT algorithm with additional bio-inspired features, adhering to Object Oriented Programming principles.

· Aiming to minimize the role of architecture design and hyperparameter selection on learning outcomes.

Decoding the Brain September 2018 - Present

Computer Science & Neuroscience <u>GitHub</u>

· Processed and analyzed ∼300 GB of brain MRI data

· Extracted regions of interest and parcellated the brain to build a compact and meaningful dataset, reducing disk size by 75%.

· Training 3D convolutional neural networks and linear classifiers to predict visual stimuli from MRI data.

STRENGTHS

Languages & Frameworks	Python, Node.js, Javascript, MATLAB, R, C/C++, Java
Software & Tools	Jupyter, git, LaTeX, Adobe CC
Skills	Programming, Decision Analysis, Filmmaking (bit.ly/brokenfilm)