Andreas Karagounis

akaragou.github.io

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EDUCATION

Brown University, Providence, RI
SEPTEMBER 2017 - PRESENT

Masters in Computer Science Candidate, GPA: 4.0

Brown University, Providence, RI
SEPTEMBER 2013 - MAY 2017

Bachelor of Science Computer Science-Economics, GPA: 3.5

RESEARCH

Serre Lab, Providence, RI — *Research Assistant*
JANUARY 2017 - PRESENT

Automating Pathology
- Training Convolutional Neural Networks (CNN) in **TensorFlow** to detect whether a zoomed in image patch contains a tumor or not
- Visualizing results with **TensorBoard**'s Embedding Visualizer
- Creating Saliency maps to detect tumors at the cellular level

Analyzing Human Vision Correlations with Convolutional Neural Networks
- Built data pipeline in **TensorFlow** that extracts features from each convolution and fully connect layer of a CNN and trains and tests a SVM on each layer
- Developed a data loader in **Python** to extract results from a database for human web experimental trials and compute correlations between each CNN layer and human's categorization accuracy

TEACHING

CS1951A: Data Science , Providence, RI — *Teaching Assistant*
JANUARY 2017 - MAY 2017

- Course provides an overview of techniques and tools for data science: **SQL**, algorithms for machine learning, and visualization methods
- Created course materials and held office hours

CS100A: Data Fluency For All, Providence, RI — *Teaching Assistant*
JUNE 2016 - DECEMBER 2016

- Developed course materials for newly created course CS100 - introduction to data science, statistics and machine learning using spreadsheets and **R**
- Held office hours graded assignments and presented weekly interactive labs to 20 students

Brown Datathon, Providence, RI — *Workshop Facilitator*
MARCH 2016 AND MARCH 2017

- Held workshop visualizing data in **R**, demonstrating techniques in **ggplot2** and tm (text mining package)
- Held workshop creating an interactive K-means clustering **Shiny R** web app in which users could select a specific K

PROFESSIONAL EXPERIENCE

Black Sea Trade and Developmental Bank, Thessaloniki, Greece — *Intern*
JUNE 2014 - AUGUST 2014

- Analyzed and presented financial and geographical data on clients in banking sector using Excel
- Researched financial statements of companies in Greece in potential need of long term loans. Successfully found a marble company in need of a loan exceeding 8 million euros and facilitated relationship with the Bank

COMPETITION

Kaggle Invasive Species Monitoring Competition - Placed in the top 14% by fine tuning Vgg16 fully connected layers using batch normalization and image augmentations

COURSES

Algorithms and Data Structures
Computer Systems
Data Science
Big Data
Database Management Systems
Computation Vision
Econometrics
Statistical Inference
Machine Learning
Comp. Probability and Statistics
Prescriptive Analytics

PROGRAMMING LANGUAGES

Python (proficient)
TensorFlow (proficient)
SQL (proficient)
R (proficient)
C (some experience)
Java (some experience)
D3.js (some experience)

LANGUAGES

English (native)
Greek (native)