Max Ogryzko

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EDUCATION

Columbia University, New York, NY Expected May 2019

Bachelor of Science in Computer Science *

Relevant coursework: Advanced Computer Vision, Computer Vision, Intro to Data Visualization, Reinforcement Learning, Advanced Spoken Language Processing, Artificial Intelligence, Natural Language Processing, Advanced Programming

Whitman College, Walla Walla, WA Expected May 2019

Bachelor of Arts in Mathematics/Computer Science *

Relevant coursework: Data Structures and Algorithms, Discrete Mathematics, Linear Algebra

* Dual Degree Program

SKILLS

Python, NumPy, PyTorch, Git; Proficient in C, C++, D3, Javascript, Tensorflow, SQL, Java, Matlab/Mathematica, Latex

COMPUTER SCIENCE PROJECTS

Interactive Visualization with Sentiment Analysis Fall 2018

Columbia University New York, NY

- Performed sentiment analysis with nltk library on dataset of 3 million tweets from Russian Trolls with Python
- Visualized resulting data using D3

Building Recognition App Fall 2018

Columbia University New York, NY

- Collaborated on a team of three to build the framework of smartphone app that recognizes, outlines, and provides information about notable buildings in New York City
- Created camera and rotation matrices from sensor data to identify building in user view
- Translated 3D points into user view to overlay outline of building with Python

Ghost NBA Defender AI Summer 2018

Personal Project New York, NY

- Cleaned and processed 500+ mb JSON files from over 1000 NBA games with Python
- Engineered rule-based algorithm that finds inputted player in defensive scenarios using Numpy and Pandas
- Designed LSTM neural network and training dataset using PyTorch
- Programmed game interface

Translation Device for Natural Disasters Fall 2018

HackMIT Boston, MA

- Assisted a team of 4 to determine input language via audio clip, then use various Google REST API to output current natural disaster weather forecasts in language of audio clip
- De-noised audio file with a high pass filter using a Fourier Transform and created a spectrograph of frequency vs. time and reduced sampling rate of audio according to Nyquist Theorem with Python
- Created convolutional neural network with PyTorch

Web Server Fall 2017

Columbia University New York, NY

- Created a web server with three-tier architecture that serves static contents including html and image files in C

PROFESSIONAL EXPERIENCE

Columbia University Department of Computer Science Fall 2018

Teaching Assistant New York, NY

- Collaborated with a team of TAs covering Professor Tony Dear's Artificial Intelligence course
- Ran recitation sections, graded homework, and hosted weekly office hours
- Topics included: search algorithms using admissible heuristics, constraint satisfaction problems using constraint graphs, Markov decision processes in reinforcement learning contexts, Bayes' nets, hidden Markov models, Naive Bayes, perceptrons, and clustering

Columbia University Engineering Outreach Program Summer 2018

Teaching Assistant New York, NY

- Aided local high school students in creating a minesweeper game and game playing AI
- Tutored students concepts including object oriented programming, sorting algorithms, and graph search methods

Greenlake School Age Child Care Program Summers of 2011-13, 15, 17

- Communicated conflict management and communication skills to 60 children of ages 5-12 Seattle, WA
- Delegated logistical tasks to improve team efficiency in high stress situations
- Researched, brainstormed, and organized projects 3 times per week