Dillon Davis

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EDUCATION

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

B.S. Computer Science
2015-2018 | GPA: 3.88/4.0
Focus in Big Data and Intelligence
Dean's List | James Scholar

LINKS

Github: **dillondavis**
LinkedIn: **dillon-davis**

COURSEWORK

FUNDAMENTALS

Introduction to Computer Science
Discrete Structures
Data Structures
Systems Programming
Applied Linear Algebra
Numerical Methods
Algorithms and Models of Computation

ADVANCED

Database Systems
Introduction to Data Mining
Advanced Data Science
Applied Machine Learning
Artificial Intelligence
PL and Compilers
Computer Vision
CNNs for Visual Recognition

SKILLS

PROGRAMMING

Over 5000 lines:
Java • Python
Over 1000 lines:
C • C++
Familiar:
Javascript • MySQL • iOS • Clojure • HTML/CSS • R

DEVOPS/TECH

UNIX/Bash • Git • SVN • AWS • Jupyter Notebook • NumPy/pandas • Tensorflow • PyTorch • Flask • Cascading • MongoDB • PostGres • Redis • MariaDB • Hadoop • Keras

EXPERIENCE

AIRBNB Machine Learning Intern

May 2018 - Aug 2018 | San Francisco, CA

- Built a custom end to end pipeline for scene verification using computer vision and deep learning techniques combined with out of the box clustering methods.
- Experimented with three different face verification techniques for our task: Siamese Networks, Hadsell Loss, and Triplet Loss, significantly outperformed baseline methods with cluster purity of 78-83%
- Built data pipelines to compute and store image sizes for all listing images at Airbnb which are critical for metrics, experiments, and teams across Airbnb.
- Integrated room classification model on search to reorder listing images by room type.

RESEARCH Undergraduate Researcher | Computer Vision

Sep 2017 - May 2018 | Urbana-Champaign, IL | Professor Svetlana Lazebnik

- Worked on improving object visibility classifiers with domain adaptation/transfer learning by finetuning CNNs on real/synthetic imagery.
- Arun Mallya, Dillon Davis, Svetlana Lazebnik "Piggyback: Adapting a Single Network to Multiple Tasks by Learning to Mask Weights" ECCV 2018

UBER Software Engineer Intern | Maps Data

May 2017 - Aug 2017 | Palo Alto, CA

- Designed and implemented a Named Entity Recognition system for US, Mexico, and Canada address parsing using big data and sequence based machine learning techniques and received a return offer.
- Built a data pipeline to extract necessary data and build massive, robust training datasets for my models with custom features using Java's Cascading framework on AWS ElasticMapReduce
- Built Conditional Random Field models and a custom BiLSTM-CRF deep learning model achieving full address accuracies of 93-96% and 98.3-99.1% on heldout data.

CLIQ Software Developer Intern | Full Stack

May 2016 – Aug 2016 | Chicago, IL

- Worked on new features such as intelligently suggesting friends to invite to Cliq and user analytics tools under the CTO using Flask, Mongo, and Redis.
- Developed an experimental web app for the Cliq mobile app that aggregated top events for users' areas and later ported it to Swift/iOS.
- Developed and prototyped a new feature for to connect groups with events

PROJECTS

PUP.AI

- Built a fine grained image recognition system with deep learning techniques in PyTorch to classify the breed of a dog given an image. Worked on a team to build a REST service and mobile app for users to classify dog images.

WIKIPEDIA VANDALISM DETECTION

- Research project to detect fraudulent or vandalistic revisions on Wikipedia
- Built a Logistic Regression model with 90% accuracy and helped train and improve a Random Forest to achieve 95% accuracy and 98% recall.

PICO CLASSIFICATION LIBRARY

- Implementation of classification algos such as Decision Trees and Random Forest in Python and Naïve Bayes and a basic Neural Network in Clojure