Daniel Smith
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Incoming UCLA M.S. Computer Science student with work experience in Big Data and Machine Learning. Currently seeking opportunities to apply skills for the Summer of 2022 in Data Science or Software Engineering.

SKILLS

Tools and Languages	**Advanced:** Python, C/C++, Java, R, MySQL, Linux, Vim, VS Code, Git, NumPy, Pandas, PyTorch
	Proficient Docker, Django, MongoDB, JavaScript, React, Node.js, ElasticSearch
Communication	English(Native), Korean(Fluent)

EXPERIENCE

Data Science Intern   June 2021 — Sept. 2021
Lockheed Martin   *El Segundo, CA*
- Developed frontend and backend of an Internal Django Website with one other intern, in order to aggregate Internal Documents, in addition to deploying search functions using ElasticSearch in Docker.
- Created Pipeline and Python script to use and export data from MongoDB in order to automate a custom A/B Testing Script for search recommendations.
- Retrained Google's Word2Vec model with Senior AI Staff Scientist, Mathew Horak, to recognize company's keywords in searches aggregated from MongoDB, as well as implement K-Means Clustering to quantify the amount of search sessions

Bioinformatics Undergraduate Researcher   Mar. 2020 — June 2021
Scalable Analytics Institute   *Los Angeles, CA*
- Worked under Professor Wei Wang and PhD candidate, Guangyu Zhou, to implement the PSIBLAST Algorithm on the UniRef90 Database, and augment the select features to create a PSSM (Position Specific Scoring Matrix)
- Developed LSTM model in PyTorch that reads in protein sequences as well as a PSSM and classifies anomalies in resulting genome sequences 6% more accurately than conventional models

Hackathon Organizer and Mentor   June 2020 — Oct. 2020
UCLA Transfer Bridge   *Los Angeles, CA*
- Administered and led workshops on Python and Data Structures in C++ to prepare transfer students with the skills and knowledge necessary to succeed at UCLA
- Responsible for managing logistics and budget of $5000 for an online Electric Car Hackathon with Electrical and Computer Engineering Professor, Gregory Pottie, as well as 3 Graduate Students for 60 incoming Transfer Students

PROJECTS

Pix2PixGAN Clone
- Created a clone from scratch of the Pix2PixGAN in PyTorch consisting of a PixelGAN generator with Up-sampling and Down-sampling Modules as well as a U-Net discriminator
- Developed Pipeline for aggregating and converting hand drawn images to grayscale in order to train Pix2PixGAN to generate colored versions of the image *(https://colab.research.google.com/drive/1JIn-osvs2utb42cYKI5dPkDVea3l3RQA?usp=sharing)*

Generating EEG signals using GANs
- Trained Discriminator and Generator in PyTorch using multiple hybrid neural network architectures to improve accuracy score of Discriminator by 16% *(https://github.com/jakq277/Generating-EEG-signals-using-GANs)*
- Implemented JS-Divergence on a RNN-CNN GAN in order to improve and prevent generator model from collapsing due to convergence failures

EDUCATION

University of California, Los Angeles
Master of Science - Computer Science   Concentration: AI/ML   *Expected Graduation:* **Spring 2023**
Bachelor of Science - Computer Science   GPA: 3.736/4.000   **Sept 2019 — June 2022**

Relevant Courses:	Deep Learning for CV, Applications of NLP, Probability Theory, Data Analysis and Regression, Data Science Fundamentals, AI Fundamentals, Data Structures & Algorithms, Theory of Computing

EXTRACURRICULARS AND AWARDS

UCLA Engineering Transfer Center - *Engineering Resource Center*: Data Structures in C++ Tutor   **Oct. 2020 — Present**
UCLA Bruin Guardian Scholars - *Former Foster Youth & Emancipated Minor Organization*: Active Member   **Sept. 2019 — Present**
UCLA Transfer Bridge Hackathon Winner - *Awarded $1600 for 1st place in code and functionality of a Robotic Crane*   **June 2019**