Scott Figueroa Weston

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EDUCATION

University of California – Santa Barbara, Santa Barbara, CA **Sep. 2022 – Present**
Major: B.S. Computer Engineering
GPA: 3.97 (Dean's List Engineering)

EXPERIENCE

Smart Signals and Systems Lab – Santa Barbara, CA **Jun. 2023 – Present**
Computer Vision Algorithm Researcher

- Used PyTorch to design a novel unsupervised image classification algorithm (DisCLR) which increased accuracy in downstream tasks by 10%.
- Created python scripts to train model on CIFAR-10 dataset and measure accuracy using a linear classifier trained for 100 epochs.
- Used Cuda library to save and load deep learning models onto GPU server for experimentation.
- Successfully reduced model training time by pretraining encoder to learn better representations of images.
- Researched various unsupervised computer vision models and gained familiarity with academic literature.

UCSB Directed Reading Program – Santa Barbara, CA **Jan. 2023 – May 2023**
Computer Vision Research Engineer

- Worked with PhD student in developing a novel framework for 3D reconstruction of 2D images.
- Used algebraic geometry techniques to verify feature extraction of SIFT algorithm to increase robustness.
- Designed method to verify feature position relative to camera to achieve reconstruction through triangulation.
- Gained insight into algebraic geometry concepts through reading academic papers and textbooks.

UCSB SIMS – Santa Barbara, CA **Aug. 2022 – Sep. 2022**
Engineering Intern

- Designed a soft robotic arm using plastic sheet and pneumatic tubing.
- Analyzed contraction of arm with MATLAB and created data visualizations with python to modify design.
- Used C++ to program Arduino for prototype of soft robotic arm that contracts upon human touch.

SKILLS

- **Programming Languages:** Python**,** C/C++, Java, JavaScript, HTML, CSS, MATLAB.
- **Programming Libraries:** OpenCV, CUDA, Scikit-learn, Numpy, Pandas, Librosa.
- **Deep Learning Frameworks:** PyTorch, TensorFlow, Keras.
- **Web Frameworks:** React, Django, React Native.
- **Platforms:** Google Cloud/Google Compute Engine, Cloudflare, OpenSea.

EXTRACURRICULARS

Data Science Club – Santa Barbara, CA **Sep. 2022 – Present**

- Competed in Data Science Club competition with project "SentimentSub" which used speech emotion recognition to generate color-captioned subtitles from an mp4 file.