Mokshith Voodarla

mvoodarla@berkeley.edu | (408) 506-8951

EDUCATION

UC Berkeley

Electrical Engineering and
Computer Science B.S.
Expected May 2022 | Berkeley, CA

LINKS

LinkedIn: linkedin.com/in/mokshith-voodarla
GitHub: github.com/mvoodarla
Personal Website: mokshith.xyz

SKILLS

LANGUAGES Python | Java | C++

LIBRARIES PyTorch | TensorFlow | Keras | ROS | NumPy | OpenCV | Eigen | PCL | Beautiful Soup

OTHER Stereo Cameras | LiDAR | PointCloud | Linux | Embedded Systems | Google Cloud

COURSEWORK

MATH 53 | Multivariable Calculus
EE 16A/B | Device Information and Systems
CS 61A/B/C | Structure of Computer Programs + Data Structures + Machine Architecture
CS 70 | Discrete Math and Probability
CS 170 | Efficient Algorithms and Intractable Problems

PROJECTS

Jetson Home Security System

Human-aware security system with live streaming feed and human alerts; used pose estimation in TensorFlow, OneSignal, Flask, FireBase, and Android

ClairVoyance: Spatio-temporal Deep Learning Model for Weather Predection

Developed a model which can predict future frames in weather and traffic data; Used ConvLSTMs, Adversarial Networks, traditional CNNs and other 3D techniques

TionAI: Emotion Classification for Images

Developed tri-CNNs ensemble to understand the emotions a picture is trying to convey with 90.2% accuracy

Picturize - Auto Note Taker

Developed an app that automatically takes notes on any textbook page seconds after taking a picture of it; used Google Cloud OCR and developed custom text-condensing algorithm; 20k+ downloads

EXPERIENCE

Ford Motor Company | Computer Vision Research Intern

March 2020 - August 2020 | Palo Alto, CA

- Developed novel weather and lighting invariant vision-based localization pipeline for autonomous vehicles
- Invented semantic birds-eye view PointCloud representation and trained deep learning autoencoder + regressor w/ PyTorch + Keras
- Filed invention disclosure patent and submitting paper (ICRA 2021)

Placeware | Co-Founder

May 2020 - Present | Berkeley, CA

- Bringing the data revolution to brick and mortar businesses through computer vision based human interaction analytics
- Developed model (PyTorch) , frontend (ReactJS), and backend (GCP Functions + Firestore), and hardware (Flask)
- Expanding to 10+ businesses in Bay Area by end of September

Cal Launchpad (UC Berkeley Student Club) | Project Leader

August 2019 - Present | Berkeley, CA

- Managing a team of 6 working on a 3D camera tracking project
- Previous projects: Image compression using genetic algorithms, Spatio-temporal models for weather prediction

Aceinna Inc | Embedded Software Engineering Intern

June 2019 - August 2019 | Santa Clara, CA

- Developed self-balancing segway using Ninebot MiniPro chassis using Aceinna's OpenIMU as the control unit
- Tested various balancing strategies including a PID-controller
- Used VESC motor controllers and ARM-Cortex M4 timers to generate PWM signal for motor control on OpenIMU

LookyLoo Inc | ML & Cloud Engineering Contractor

September 2018 - May 2019 | San Francisco, CA

- Developed models for automatic recommendation of clothing based on body type, clothing style, and brand preferences
- Compiled dataset (~220k images) of clothing piece images and metadata using Beautiful Soup and saved to GCP storage buckets
- Trained CNN models using TensorFlow TPUs to predict metadata

NVIDIA Corp | Computer Vision & Robotics Intern

June 2018 - August 2018 | Santa Clara, CA

- Developed algorithms to replace 3D LiDAR w/ cheaper camera on indoor robot to avoid obstacles like glass, stairs, and railing
- Trained TensorFlow segmentation model for safe/unsafe area classification; Implemented on Jackal UGV using Jetson TX2 and ROS top-down PointCloud map