Kush Desai

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EDUCATION

THE UNIVERSITY OF TEXAS AT AUSTIN

BS in Computer Engineering (Data Science and Information Processing)

May 2022 | Austin, TX
Cockrell School of Engineering
GPA: 3.68 / 4.0

LINKS

Github:// **kdesai2018**
LinkedIn:// **kushkdesai**
Twitter:// **@kdesai2018**

COURSEWORK

GRADUATE

Neural Computation
Robot Learning

UNDERGRADUATE

Operating Systems
Algorithms
Digital Image Processing
Data Science Principles
Linear Algebra
Software Implementation and Design (Honors)
Probability
Senior Design

SKILLS

PROGRAMMING

Rust, Python, Java, C++ ★★★★★
Javascript, CSS ★★★★☆
C, Assembly ★★★☆☆

TECHNOLOGIES

Robot Operating System • AWS • Azure • Google Cloud • PyTorch • Tensorflow • OpenCV • Jupyter • sklearn • pandas • keras • Git • Docker • Bash • Arduino • *-nix systems

VOLUNTEERING

AAAI Volunteer (2021) • HRI Volunteer (2021) • Freetail Hackers Logistics Director (2020-21)

EXPERIENCE

FACEBOOK | Production Engineering intern

Summer 2021 | Remote

- Using **Rust and Buck** to build an end-to-end load testing system for Facebook Live infrastructure that can handle over 1 million requests at 1000 QPS
- Used **Scuba, ODS and Unidash** to build a comprehensive monitoring system with detailed real-time visualization

DILIGENT ROBOTICS | Software Engineering intern

Feb 2021 - May 2021 | Austin, TX

- Using **Python** and **ROS** to build new features for Moxi, a socially-aware humanoid robot

SOCIALLY INTELLIGENT MACHINES LAB | Research Intern

August 2018 - Present | Austin, TX

- Researching **audio-augmented Imitation Learning** and implemented **object recognition algorithms** under Dr. Andrea Thomaz
- Conducted robotics experiments using **Python, TensorFlow, ROS, AWS, Mechanical Turk** and **Javascript**

BP | Software Engineering intern

Summer 2020 | Remote

- Designed an **optimal routing algorithm** for shipping to minimize carbon emissions by 30% globally
- My team won **Most Innovative Solution** in the intern hackathon out of 80 interns

PROJECTS

BEVO GITHUB.COM/KDESAI2018/BEVO

Best Use of Google Cloud, Best Accessibility Hack | TAMUHack 2020

Built BEVO (**B**lind **E**nvironment **V**isualization **O**bjects) a palm and object-recognition pipeline to help visually impaired individuals locate objects using audio cues using **Tensorflow, Google Cloud, Python** and **OpenCV**

DROWSY DRIVER GITHUB.COM/KDESAI2018/DROWSY-DRIVER

1st overall, Best in workplace safety | UT Makeathon 2019

Developed an eye and grip tracking system using **OpenCV, Python** and **Arduino**

3D RENDERING FROM 2D IMAGES

KDESAI2018.GITHUB.IO/NBA-PROJECT
Class Competition Winner | Fall 2020

Built an end-to-end pipeline using **Python**, **OpenCV** and **PyTorch** to convert videos from NBA games into 3-dimensional pointclouds with pose and object information

AWARDS

2021	UT Engineering	Gail and Howard Neal Endowed Scholarship
2019	National	BP Scholar

PUBLICATIONS

[1] A. Saran, K. Desai, R. Lioutikov, A. Thomaz, and N. Scott. A case for leveraging human prosody during reward learning. *Workshop, 16th Annual Conference for Basic and Applied Human-Robot Interaction Research*, March 2021.