

Nishant Kheterpal

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734-205-8574

Education

University of California, Berkeley - GPA: 3.85/4.0

Graduated Fall 2018

- Bachelors of Science in Electrical Engineering and Computer Sciences
- Coursework in artificial intelligence, machine learning, vehicle dynamics, optimization, probability, controls, data science, computer architecture, algorithms, discrete math, linear algebra

Experience

Ike Robotics - Simulation Software Engineer

1/2019 - 1/2020

- Developed simulator in Unreal Engine to test and validate autonomy software for trucking
- Built out features like simulated intelligent actors and integrated control & dynamics into simulation
- Implemented distributed cloud simulation in Google Cloud Platform using Docker and Kubernetes

Berkeley Deep Drive - Undergraduate Researcher

1/2017 - 12/2018

- Built Flow, an open-source framework enabling deep reinforcement learning for traffic control using vehicle simulator SUMO, RLlib, rllab, and Amazon Web Services
- Designed experiments in Flow to train vehicles and infrastructure to alleviate traffic congestion
- Co-author, "Benchmarks for reinforcement learning in mixed-autonomy traffic", 2018 CoRL
- First author, "Flow: Deep Reinforcement Learning for Control in SUMO", 2018 SUMO User Conference

Foundations of Data Science, UC Berkeley - Undergraduate Student Instructor

8/2016 - 12/2018

- Pedagogy lead supervising a team of 4 instructors developing course materials for 1200+ students
- Course evaluations consistently above average (personal: 4.6/5, average: 4.3/5)

General Motors - Electrification Controls Intern

6/2017 - 8/2017

- Validated power consumption models for electric vehicles using experimental data
- Developed and troubleshooted Simulink models for electrified powertrain energy consumption

Apple - Emerging Technologies Intern

5/2016 - 8/2016

- Developed interactive Matlab tools to analyze and summarize spatial and temporal datasets
- Streamlined a signal simulation pipeline and created GUIs for rapid signal generation
- Extended open source library tools in Matlab for data analysis and simulation purposes

University of Michigan Transportation Research Institute - Research Assistant

7/2013 - 8/2015

- Analyzed sensor data using SQL and plotting tool Igor to evaluate active safety performance
- Built Matlab tools to automatically characterize heavy truck suspension behavior from test data

Honors and Awards

Outstanding Graduate Student Instructor Award - Top 9% of GSIs

2017/2018

Member, Eta Kappa Nu, Mu (Berkeley) Chapter - Top 25% of EECS Majors

12/2016 - 12/2018

Berkeley Engineering Honors to Date - Top 20% GPA

Fall 2015 - Fall 2018

College of Engineering Dean's List - Top 10% GPA

Fall 2015, Fall 2016, Spring 2017

Programming Languages and Tools

- Python, C++, Matlab, Simulink, C, Java, SQL