

Nishant Kheterpal

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734-205-8574

Education

University of California, Berkeley - GPA: 3.94/4.0 Expected Graduation: December 2018

- Major: Electrical Engineering and Computer Sciences; Concentration: Statistics
 - Coursework in artificial intelligence, machine learning, vehicle dynamics, optimization, probability, controls, data science, computer architecture, algorithms, discrete math, linear algebra
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Experience

Berkeley Deep Drive - Undergraduate Researcher 1/2017 - Present

- Built Flow, an open-source framework enabling deep reinforcement learning for traffic control using vehicle simulator SUMO, RLib, rllab, and Amazon Web Services
- Designed RL experiments in Flow to train vehicle and infrastructure agents to improve traffic flow in congested traffic scenarios
- Co-author, "Framework for Control and Deep Reinforcement Learning in Traffic", 2017 IEEE ITSC
- 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 - Present

- Primary lab section instructor teaching computational and inferential thinking with real-world data
- Member of teaching staff responsible for developing course and studying pedagogy

General Motors - Electrification Controls Intern 6/2017 - 8/2017

- Validated power consumption models for electric vehicles using experimental data
- Developed and troubleshoot 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
- Summarized work in final presentation, well-received by 20+ cross-functional team members

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
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Honors and Activities

Bronze Medal Winner - Siemens-UC Berkeley Hackathon 2018

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 - Present

Berkeley Engineering Honors to Date - Top 20% GPA Fall 2015 - Present

College of Engineering Dean's List - Top 10% GPA Fall 2015, Fall 2016, Spring 2017

Michigan Mathematics Prize Competition - Top 100 2015

Programming Languages and Tools

- Matlab, Simulink, Python (numpy, scipy, pandas), Java, C, SQL, Autodesk Inventor