

# SHENAO ZHANG

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## EDUCATION

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<b>Georgia Institute of Technology</b> M.S. in ECE (Electrical and Computer Engineering), GPA: 3.87/4.00	<i>May 2020 - Dec. 2021 (expected)</i> <i>Atlanta, GA</i>
<b>Georgia Institute of Technology</b> M.S. in CSE (Computational Science and Engineering), GPA: 4.00/4.00	<i>Jan. 2021 - Aug. 2022 (expected)</i> <i>Atlanta, GA</i>
<b>South China University of Technology</b> B.Eng. in EE (Information Engineering Innovation Class)	<i>Aug. 2016 - May 2020</i> <i>Guangzhou, China</i>
<b>University of California, Berkeley</b> Visiting student at Department of EECS, GPA: 3.90/4.00	<i>Jan. 2019 - May 2019</i> <i>Berkeley, CA</i>

## RESEARCH INTERESTS

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Reinforcement learning, robotics and the analysis of machine learning algorithms from stochastic and Bayesian perspectives.

## PUBLICATIONS

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- [1] **Shenao Zhang**. Dual Conservative Policy Update for Efficient Model-Based Reinforcement Learning. Under review at *Neural Information Processing Systems (NeurIPS)*, 2021. [Full paper](#).
- [2] **Shenao Zhang**, Li Shen, Lei Han, Li Shen. Learning Meta Representation for Agents in Multi-Agent Reinforcement Learning. Under review at *Neural Information Processing Systems (NeurIPS)*, 2021. [Arxiv paper](#).
- [3] **Shenao Zhang**, Li Shen, Zhifeng Li, Wei Liu. Structure-Regularized Attention for Deformable Object Representation. Accepted at *Advances in Neural Information Processing Systems (NeurIPS) Workshop*, 2020. [Paper website](#) and [full paper](#).

## RESEARCH EXPERIENCE

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<b>Georgia Tech</b> <i>Research Assistant. Advisor: Evangelos Theodorou</i> Stochastic analysis of reinforcement learning complexity bound.	<i>May 2021 - Present</i> <i>Atlanta, GA</i>
<b>Tencent AI Lab</b> <i>Research Intern. Advisors: Li Shen, Lei Han and Li Shen</i> Computer vision and multi-agent reinforcement learning.	<i>Aug. 2019 - Aug. 2020</i> <i>Shenzhen, China</i>
<b>Columbia University</b> <i>Research Assistant. Advisor: Bo Wu</i> Computer vision.	<i>May 2019 - Aug. 2019</i> <i>New York, NY</i>
<b>South China University of Technology</b> <i>Research Assistant. Advisors: Huabiao Qin and Mingkui Tan</i> Robotics and reinforcement learning.	<i>Sep. 2017 - Jan. 2019</i> <i>Guangzhou, China</i>

## TEACHING EXPERIENCE

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**Graduate Teaching Assistant:** Head TA of [CS 7648: Interactive Robot Learning](#) (Fall 2021) at Georgia Tech.

## SELECTED PROJECTS

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### Object Detection

[Project paper](#), advised by Bo Wu

*May 2019 - Oct. 2019*

*Columbia University*

### Computer Graphics

Advisors: Ren Ng and Jonathan Ragan-Kelley

- Final project: Cloth Simulation using OpenGL Shader, [project website](#)

- Projects of Rasterizer, MeshEdit, PathTracer, Physical Simulation, code and reports can be found [here](#)

*Jan. 2019 - May 2019*

*UC Berkeley*

### Gaze Tracking in Natural Light

[Project paper](#), accepted at *International Conference on Control and Automation (ICCA)*, 2019

*Oct. 2017 - Oct. 2018*

## RELEVANT COURSES

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**Undergraduate courses:** Computer Graphics (CS 184 at UC Berkeley), Intro to AI (CS 188 at UC Berkeley), Algorithms (CS 170 at UC Berkeley), Machine Perception, Information Theory, Deep Learning.

### Graduate courses at Georgia Tech:

Control courses: Linear Systems and Controls (ECE 6550), Nonlinear Systems and Control (ECE 6552), Optimal Control and Optimization (ECE 6553), Autonomous Control of Robotic Systems (ECE 6562).

ML courses: Statistical Machine Learning (ECE 6254), Mathematical Foundations of Machine Learning (ISyE 7750), Machine Learning Theory (CS 7545), Computational Data Analysis (CSE 6740).

## PROFESSIONAL ACTIVITIES

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**Conference Review:** NeurIPS 2020, NeurIPS 2021, RSS 2021, ICLR 2022, AISTATS 2022.

**Journal Review:** Neurocomputing.

## HONORS AND REWARDS

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Georgia Tech's Level A Premier Merit-Based Scholarship

*2020*

Second Prize in 2018 Undergraduate Electronics Design Contest

*2018*

Third Prize in 2018 Intel Undergraduate Embedded System Contest

*2018*

Outstanding Freshman Scholarship (Awarded to 30 among 6,500 students)

*2016*