



VLAD MAKARENKO

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1 Professional Summary

Advancing AI and robotic intelligence to unlock new frontiers of safe autonomous decision-making. Bridging theory and real-world systems through reinforcement learning research and multidisciplinary engineering. Motivated by curiosity, collaboration, and the drive to build technologies that augment and inspire designers, engineers, and creative practitioners.

2 Education

– Masters of Science in Artificial Intelligence

San Jose State University, Charles W. Davidson College of Engineering

San Jose, California

January 2022 - May 2025

– Bachelors of Science in Software Engineering

San Jose State University, Charles W. Davidson College of Engineering

San Jose, California

August 2017 - December 2021

3 Research, Scholarship, and Creative Activity

- "Average-Reward Reinforcement Learning with Entropy Regularization", with J Adamczyk, S Tiomkin, R Kulkarni, **Accepted** to *Reinforcement Learning Conference, 2025*.
- "Bootstrapped Reward Shaping", with J Adamczyk, S Tiomkin, R Kulkarni, **Accepted** to *Association for Advancement of Artificial Intelligence, 2025*.
- "EVAL: EigenVector-based Average-reward Learning", with J Adamczyk, S Tiomkin, R Kulkarni, **Accepted** to *GenPlan workshop @ Association for Advancement of Artificial Intelligence, 2025*.
- "Average-Reward Reinforcement Learning with Entropy Regularization", with J Adamczyk, S Tiomkin, R Kulkarni, **Accepted** to *PRL workshop @ Association for Advancement of Artificial Intelligence, 2025*.
- "Boosting Soft Q-Learning by Bounding", with J Adamczyk, S Tiomkin, R Kulkarni, **Accepted** to *Reinforcement Learning Conference, 2024*.
- "Controllability-Constrained Deep Network Models for Enhanced Control of Dynamical Systems", with S Sharma, G Kumar, S Tiomkin, **Accepted** to *IEEE American Control Conference, 2024*.
- "Bounding the optimal value function in compositional reinforcement learning", with J Adamczyk, A Arriolas, S Tiomkin, R Kulkarni, **Accepted** to *Uncertainty in Artificial Intelligence, 2023*.

4 Extracurricular Activities & Leadership

Machine Learning @ SJSU (Extracurricular Student Organization)

San Jose, California

President

January 2024 - May 2025

- Lead a team of motivated students in organizing hands-on workshops and paper reviews to help the diverse ML club community develop practical ML skills outside of the classroom
- Coordinated guest-speaker events
- Collaborated with other student organizations to host social and technical events

Mentor/Officer

January 2020 - May 2025

- Prepared and presented learning materials on reinforcement learning, deep learning, and machine learning
- Led team projects on applying reinforcement learning in virtual and physical environments
- Mentored students within a diverse set of majors and seniority

5 Previous Appointments

San Jose State University

Research Assistant

- Developed efficient Machine Learning experiment tracking and evaluation frameworks.

Student Instructional Assistant

- Prepared programming assignments.
- Mentored students.

San Jose, California

June 2022 - May 2023

January 2022 - December 2022

CRATUS Technology, Inc.

Software Engineer

- Designed and deployed an IoT platform for smart home monitoring.
- Developed software interfaces for edge data collection and visualization.

San Jose, California

August 2018 - July 2022

6 Skills

Mentoring, Event Coordination, Management, Leadership, Teamwork