

# Sujay Garlanka

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## SUMMARY

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A graduate student in computer science (robotics) who is working on robotics research in simulation by developing action primitives via algorithmic approaches and reinforcement learning approaches via distributed learning. Previously worked with enterprise scale data processing, developing APIs and building heavily used open source libraries for developers to interact with those APIs. Also, has experience with full stack development.

## EDUCATION

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### Duke University

*Bachelor of Science in Electrical and Computer Engineering*

Durham, NC

Aug. 2015 – May. 2019

### University of Southern California

*Masters of Science in Computer Science*

Los Angeles, CA

Aug. 2022 – Aug. 2024

Relevant Coursework: *Intro to Robotics, Robotics and Dynamics, Autonomous Cyber-Physical Systems, Machine Learning, Embedded Systems*

## EXPERIENCE

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### Stanford Vision Lab

*Research Engineer*

May 2023 - June 2024

Palo Alto/Los Angeles, CA

- Developing functionality for the open-source robotics simulator, [OmniGibson](#), built on Nvidia's IsaacSim simulation platform
- Developed algorithmic action primitives that use privileged information in the simulator for navigation and manipulation (grasping, placing inside/on top, opening and closing for prismatic and revolute joints)
- Developing action primitives using reinforcement learning. I helped create a distributed learning setup using GRPC. The setup includes a vector client environment running on a node for the RL learner that connects over the network to an N number of OmniGibson environments on other nodes.
- Currently using the distributed setup to deploy RL experiments on a Slurm cluster with Stables Baselines 3 to train a policy and Weights and Biases to track policy and computational performance

*Technologies:* Python, GRPC, Slurm, Stable Baselines 3, Weights and Biases

[Github Pull Request](#) ...

### Box

*Software Engineer*

August 2019 - June 2022

Redwood City, CA

- Co-leading the migration and re-architecture of Box API data collection and report generation of 3.8 to 114 billion rows of data daily from cron jobs to Apache Spark jobs. This decreases compute time per cluster and increases system fault tolerance.
- Developed and maintained the open source Box SDKs in Github to allow developers to integrate with Box's API. Over 1.3 million API calls are made every minute through these SDKs.
- Worked with the Java, .NET, Python, Node.js, iOS content, iOS preview SDKs and a CLI.
- Worked on networking in the iOS content SDK by rewriting the network layer to reduce the SDK size by 70%, reducing writes to disk and adding support for video streaming.
- Helped lead the intern interview hiring process, implemented tooling to streamline the process and made the take home project more inclusive and convenient for students.

*Technologies:* Java, .NET, Python, Node.js, Swift

[More Details](#) ...

### Box

*Software Engineer Intern*

May 2018 - July 2018

Redwood City, CA

- Built an open source command line tool for developers that accesses 200 of Box's API endpoints
- Incorporated JSON Web Token (JWT) authentication in the CLI that allows users to securely authenticate with Box to make API calls
- Included features such as interactive CLI with prompting and bulk input/bulk output
- Tool was publicly released and handles around 10k requests per minute

*Technologies:* Node.js, Oclif CLI Framework, Mocha Testing Framework

[More Details](#) ...

## TECHNICAL SKILLS

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**Languages:** Python, Node.js, Java, .NET, Swift, SQL, Matlab, bash

**Frameworks/Tools:** GRPC, Apache Spark, Oclif CLI Framework, Travis CI, Jenkins