JULIEN RINEAU

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EDUCATION

MSc in Mechanical Engineering, UC Berkeley (USA) May 2023
Concentration in Robotics and Autonomous systems. Courses: Intro to ML, Deep Reinforcement Learning, Natural Language Processing, Intro to Robotics, Robotic Manipulation, Advanced Control Design I & II,

Combined BSc & MSc in ME, Droped out for MSc at Berkeley, Arts et Métiers Paristech (France) May 2022
Courses: Advanced Mathematics, Advanced Computer Science, Advanced Electronics/Automatics, Control Theory

EXPERIENCE

CTO & Cofounder Sept 2024 - Present
ZeroshotData *San Francisco, CA*

- Built an end-to-end robotics model pipeline (data → train → eval → deploy)
- Scaled data collection + QA by building infra/APIs (device → cloud), CI/CD, and automated tests link
- Built internal tooling/APIs: dataset mgmt, eval suites, experiment tracking ("flywheel")
- Owned VLA/World-Model training & deployment; monitoring, versioning, releases
- Led 20+ engineers and 50+ data collectors

Research Engineer Aug 2023 - Jun 2024
Helm.ai *San Francisco, CA*

- Built distributed training pipelines for a World Diffusion model (CUDA, FSDP, DeepSpeed) link.
- Distilled/quantized ViT perception models; optimized inference for production
- Improved segmentation accuracy; supported production rollout (HONDA) link.
- Built MLOps tooling (annotation templates, dataset inspection, eval dashboards) + deployment/monitoring workflows

Graduate Student Researcher Aug 2022 - Aug 2024
UC Berkeley Hybrid Robotics Group *Berkeley, CA*

- Diffusion policies for robotic manipulation
- Combined Reinforcement Learning and Model Predictive Control for legged locomotion using Isaac Gym simulation environment
- Designed and implemented successfully a behavior cloning model on a MIT Cheetah quadruped robot using DAgger algorithm, resulting in improved control and computational performances.

SLECTED PROJECTS

- World-Model for human manipulation link
- Large-Scale Robotics Data Collection link
- Diffusion Transformer implementation for image generation link
- Rewrote the whole GPT-2/3 codebase to make it Lightning compatible + Pre-training link
- Reinforcement Learning Policy for Legged Locomotion link

PERSONAL

Technical Skills	Python (8 years), C++ (2 years), ROS, Pytorch, Tensorflow, CUDA, Linux, Docker,
Areas of Expertise	Robotics, Model Predictive Control, Deep Learning (RL, VLA, Diffusion, LLM)
Extracurriculars	Judo and Jiu-Jitsu Black Belt, Ranked 5th at National Judo Championship