Blake Wulfe

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Experience

Toyota Research Institute — Los Altos, CA

Manager and Technical Lead, Robotics — 2023 – Present

- Managed a team focused on policy learning for robotic manipulation with an emphasis on the use of foundation models (e.g., Vision-Language Models, text-to-image/video models) and learning from non-robot data (e.g., learning from UMI and human data)
- Technical Lead for a project applying Vision-Language-Action models to bimanual, dexterous tasks; responsible for software design, defining technical roadmap, training and deploying models

Senior Research Engineer, Machine Learning — 2020 - 2023

- Performed research in imitation and reinforcement learning focused on applications in robotic manipulation and autonomous driving.

Research Engineer and Technical Lead, Autonomous Driving — 2018 - 2020

- Led the design and implementation of the prediction system (responsible for inferring the intent and future trajectories of other road users) deployed on TRI vehicles
- Technical lead for the learned prediction models effort involving (i) data pipeline implementation, (ii) model design and training, (iii) run-time performance optimization, (iv) deployment on vehicle, and (v) integration with trajectory planning

Stanford Intelligent Systems Lab, Stanford University — Stanford, CA

Research Assistant — 2016 - 2018

- Performed imitation and reinforcement learning research with applications to autonomous vehicles, for example, using imitation to model the behavior of other road users for validation purposes, value function learning for estimating collision risk, and learning UAV collision avoidance policies with deep RL

Adobe Research — San Jose, CA

Research Intern — Summer 2017

Accenture — Austin, TX

Business and Systems Integration Analyst — 2014 - 2015

Education

Stanford University — August 2015 - December 2017

M.S. in Computer Science, Specialization in Artificial Intelligence

Vanderbilt University — August 2010 - May 2014

B.S. Computer Science, Cum Laude & Honors

Minors in Mathematics & Engineering Management

Computer & Technical Skills

Languages: Python, experience with C++

Software: ML Frameworks (PyTorch), Scientific Computing (NumPy, Pandas), Git, AWS

Publications

1. Barreiros, J., Beaulieu, A., Bhat, A., Cory, R., Cousineau, E., Dai, H., Fang, C.-H., *et al.* A Careful Examination of Large Behavior Models for Multitask Dexterous Manipulation. *arXiv preprint arXiv:2507.05331* (2025).
2. Grannen, J., Karamcheti, S., **Wulfe, Blake** & Sadigh, D. ProVox: Personalization and Proactive Planning for Situated Human-Robot Collaboration. *arXiv preprint arXiv:2506.12248* (2025).
3. Guha, E., Marten, R., Keh, S., Raoof, N., Smyrnis, G., Bansal, H., Nezhurina, M., *et al.* OpenThoughts: Data Recipes for Reasoning Models. *arXiv preprint arXiv:2506.04178* (2025).
4. Hatch, K. B., Balakrishna, A., Mees, O., Nair, S., Park, S., **Wulfe, Blake**, Itkina, M., *et al.* Ghil-glue: Hierarchical Control with Filtered Subgoal Images. *2025 IEEE International Conference on Robotics and Automation (ICRA)* (2025).
5. Khazatsky, A., Pertsch, K., Nair, S., Balakrishna, A., Dasari, S., Karamcheti, S., Nasiriany, S., *et al.* DROID: A Large-Scale In-the-Wild Robot Manipulation Dataset. *Robotics: Science and Systems (RSS)* (2024).
6. O'Neill, A., Rehman, A., Maddukuri, A., Gupta, A., Padalkar, A., Lee, A., Pooley, A., *et al.* Open X-Embodiment: Robotic Learning Datasets and RT-X Models: Open X-Embodiment Collaboration. *International Conference on Robotics and Automation (ICRA)* (2024).
7. Tian, S., **Wulfe, Blake**, Sargent, K., Liu, K., Zakharov, S., Guizilini, V. & Wu, J. View-Invariant Policy Learning via Zero-Shot Novel View Synthesis. *Conference on Robot Learning (CoRL)* (2024).
8. Nishimura, H., Mercat, J., **Wulfe, Blake**, McAllister, R. T. & Gaidon, A. RAP: Risk-Aware Prediction for Robust Planning. *Conference on Robot Learning (CoRL)* (2023).
9. Bhattacharyya, R., **Wulfe, Blake**, Phillips, D. J., Kuefler, A., Morton, J., Senanayake, R. & Kochenderfer, M. J. Modeling Human Driving Behavior Through Generative Adversarial Imitation Learning. *Transactions on Intelligent Transportation Systems* (2022).
10. Ivanovic, B., Lee, K.-H., Tokmakov, P., **Wulfe, Blake**, Mcllister, R., Gaidon, A. & Pavone, M. Heterogeneous-Agent Trajectory Forecasting Incorporating Class Uncertainty. *International Conference on Intelligent Robots and Systems (IROS)* (2022).
11. McAllister, R., **Wulfe, Blake**, Mercat, J., Ellis, L., Levine, S. & Gaidon, A. Control-Aware Prediction Objectives for Autonomous Driving. *International Conference on Robotics and Automation (ICRA)* (2022).
12. **Wulfe, Blake**, Balakrishna, A., Ellis, L., Mercat, J., McAllister, R. & Gaidon, A. Dynamics-Aware Comparison of Learned Reward Functions. *International Conference on Learning Representations (ICLR)* (2022).
13. Mohanty, S., Poonganam, J., Gaidon, A., Kolobov, A., **Wulfe, Blake**, Chakraborty, D., Šemetulskis, G., *et al.* Measuring Sample Efficiency and Generalization in Reinforcement Learning Benchmarks: Neurips 2020 Procgen Benchmark. *Preprint* (2021).
14. Bhattacharyya, R. P., Phillips, D. J., **Wulfe, Blake**, Morton, J., Kuefler, A. & Kochenderfer, M. J. Multi-Agent Imitation Learning for Driving Simulation. *International Conference on Intelligent Robots and Systems (IROS)* (2018).
15. Tompa, R. E., **Wulfe, Blake**, Kochenderfer, M. J. & Owen, M. P. Horizontal Maneuver Coordination for Aircraft Collision-Avoidance Systems. *Journal of Aerospace Information Systems* (2018).
16. **Wulfe, Blake**, Chintakindi, S., Choi, S.-C. T., Hartong-Redden, R., Kodali, A. & Kochenderfer, M. J. Real-Time Prediction of Intermediate-Horizon Automotive Collision Risk. *Autonomous Agents and Multi-Agent Systems (AAMAS)* (2018).
17. Tompa, R. E., **Wulfe, Blake**, Owen, M. P. & Kochenderfer, M. J. Collision Avoidance for Unmanned Aircraft Using Coordination Tables. *Digital Avionics Systems Conference (DASC)* (2016).