Vihang Patil
Researcher in ML and AI

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EDUCATION

- **Johannes Kepler Universität Linz** — Linz, Austria
  Ph.D. student in Reinforcement Learning advised by Prof. Sepp Hochreiter — *Sep. 2019 – Nov. 2024*

- **Universita Della Svizzera Italiana** — Lugano, Switzerland
  Master of Science in Artificial Intelligence (9.00/10) — *2017 – 2019*

- **ETH Zurich** — Zurich, Switzerland
  Exchange Semester and Master Thesis — *2018 – 2019*

- **University of Mumbai** — Mumbai, India
  Bachelor of Engineering in Electronics (First Class) — *2011 – 2015*

RESEARCH EXPERIENCE

- **Amazon** — Berlin, Germany
  Applied Scientist II - RUFUS — *Nov 2024 - Ongoing*

- **Amazon** — Seattle, USA
  Applied Science Intern - AGI — *Sep 2023 - Dec 2023*

- **Amazon** — Seattle, USA
  Applied Science Intern - Alexa AI — *Jan 2022 - May 2022*

- **Institute for Machine Learning, Johannes Kepler Universität Linz** — Austria
  Research Assistant - Advised by Prof. Sepp Hochreiter — *Sep 2019 - Nov 2024*

- **Data Analytics Group, ETH Zurich** — Zurich, Switzerland
  Master Thesis Student - Advised by Dr. Aurelien Lucchi — *Oct 2018 - Sep 2019*

- **Institute for Machine Learning, Johannes Kepler Universität Linz** — Austria
  Visiting Student Researcher - Advised by Prof. Sepp Hochreiter — *Jun 2018 - Nov 2018*

- **University of Mumbai** — Mumbai, India
  Student Researcher - Advised by Prof. Sandeep Mishra — *May 2014 - May 2015*

RESEARCH PAPERS

- **A Large Recurrent Action Model: xLSTM enables Fast Inference for Robotics Tasks**
  T. Schmied, T. Adler, V. Patil, M. Beck, K. Pppel, J. Brandstetter, G, Klambauer, R. Pascanu, S. Hochreiter (ICML 2025)

- **Retrieval-Augmented Decition Transformer: External Memory for In-Context RL**
  T. Schmied, F. Paischer, V. Patil, M. Hofmarcher, R. Pascanu, S. Hochreiter (Under Review)

- **Simplified Priors for Object-Centric Learning**
  V. Patil, A. Radler, D. Klotz, S. Hochreiter (COLLAS 2024)

- **Contrastive Abstraction for Reinforcement Learning**
  V. Patil, E. Rumetshofer, M. Hofmarcher, S. Hochreiter (NeuRIPS, Gen Plan Workshop 2023)

- **MyoChallenge 2022: Learning contact-rich manipulation using a musculoskeletal hand**
  V. Caggiano,..,V. Patil,...,Vikash Kumar (NeuRIPS 2022)

- **InfODist: Online distillation with Informative rewards improves generalization**
  Siripurapu, Patil, Schweighofer, Dinu, Schmied, Holzleitner, Eghbal-Zadeh, Kopp, Hochreiter (NeuRIPS, DRL Workshop 2022)

- **Align-RUDDER: Learning From Few Demonstrations**
  V. Patil, M. Hofmarcher, M. Dinu, M. Dorfer, P. Blies, J. Brandstetter, J. Arjona, S. Hochreiter (ICML 2022)

- **History Compression via Language Models in Reinforcement Learning**
  F. Paischer, T. Adler, <u>V. Patil</u>, A. Bitto, S. Lehner, H. Eghbal-Zadeh, S. Hochreiter (ICML 2022)

- **A Globally Convergent Evolutionary Strategy for Stochastic Constrained Optimization**
  <u>V. Patil</u>*, Youssef Diouane*, Aurelien Lucchi* (AISTATS 2022)

- **A Dataset Perspective on Offline Reinforcement Learning**
  K. Schweighofer, A. Radler, M. Dinu, M. Hofmarcher, <u>V. Patil</u>, A. Bitto, H. Zadeh, S. Hochreiter (COLLAS 2022)

- **XAI and Strategy Extraction via Reward Redistribution**
  M. Hofmarcher, M. Dinu, <u>V. Patil</u>, M. Dorfer, P. Blies, J. Brandstetter, J. Arjona, S. Hochreiter (XXAI - Book Chapter)

- **Reactive Exploration to Cope with Non-Stationarity in Lifelong Reinforcement Learning**
  C. Steinparz, T. Schmied, F. Paischer, M. Dinu, <u>V. Patil</u>, A. Bitto, H. Zadeh, S. Hochreiter (COLLAS 2022)

- **Understanding the effect of Dataset Composition on Offline Reinforcement Learning**
  K. Schweighofer, M. Dinu, M. Hofmarcher, A. Bitto, P. Renz, <u>V. Patil</u>, S. Hochreiter (NeuRIPS, DRL workshop 2021)

- **Modern Hopfield Networks for Return Decomposition for Delayed Rewards**
  M. Widirich, M. Hofmarcher, A. Bitto, <u>V. Patil</u>, S. Hochreiter (NeuRIPS, DRL workshop 2021)

- **Guided Search for Maximum Entropy Reinforcement Learning**
  <u>V. Patil</u>

RESEARCH COMPETITIONS

- **MyoChallenge at Neurips 2022**
  Co-Winners of the MyoChallenge 2022 at Neurips 2022 *Aug 2022 - Nov 2022*
- **Robocon** Mumbai, India
  Programmer/Team Leader - Built various kinds of robots *Dec 2013 - Mar 2015*

APPLIED ML EXPERIENCE

- **Fractal.ai** Mumbai, India
  Associate (Data Science) *Jan 2016 - Jul 2017*

OTHER

- **Program Chair**
  ***AAAI** (2025)*

- **Reviewing Conferences**
  ***NeurIPS** (2024, 2023, 2022, 2021, 2020), **ICML** (2024, 2023, 2022, 2021, 2020), **ICLR** (2025, 2022, 2021, 2020)*

- **Deep Reinforcement Learning** Austria
  Teaching Assistant - Johannes Kepler Universität Linz *2024, 2023, 2021, 2020 Summer Semester*

TECHNICAL SKILLS

- **Languages**: Python, C++, MATLAB, R, HTML, CSS

- **Frameworks**: Pytorch, Tensorflow

SCHOLARSHIPS

- **LIT AI Lab PhD Scholarship**
  2019 – 2024

- **Tution Fee Waiver Scholarship, Govt. of India**
  Awarded to top 5% of the class. *2011 – 2015*

LINKS

- Github, Website, Google Scholar, Twitter