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Alex Pashevich

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Experience

Senior Machine Learning Researcher Machine Learning Researcher

Jul 2024 – present Sep 2022 – Jul 2024

Borealis AI / RBC, Vancouver, BC, Canada

- Driving \$100M+ annual value with cutting-edge deep learning models for credit adjudication and fraud detection.
- Leading end-to-end model development, including translating business problems into research questions, preparing data, implementing models, refining the solution through experiments, and presenting findings to key stakeholders.
- Supervising interns and pushing the boundaries of state-of-the-art research in time series forecasting.

PhD candidate (advised by Cordelia Schmid)

Inria, Grenoble, France

Sep 2017 - Oct 2021

- Published 5 papers at top-tier conferences in various domains of AI, including deep reinforcement and imitation learning, natural language processing, computer vision, multimodal transformers, robotics, and sim2real transfer.
- Pioneered robot learning research at Inria under Dr. Schmid's supervision. The lab effort now consists of 15+ people.
- Developed state-of-the-art methods for learning to control real-world robots based on visual and language inputs.
- Supervised 2 interns, taught algorithms to a class of 30 students, collaborated with 4 engineers and 1 PhD student.

Research Intern (advised by Chen Sun)

Google Research, Paris, France

Sep 2020 – Mar 2021

- Improved results on a Vision Language Navigation task by 74% by developing a multimodal transformer architecture.
- Published the work at the ICCV conference (A1, 25.9% acceptance rate).
- Accelerated training of open-source code by 200% by employing a multi-process data loading and LMDB databases.
- Implemented multi-GPU training with TensorFlow for internal clusters and open-sourced models with PyTorch.

Research Intern (advised by Radu Horaud)

Inria, Grenoble, France

Feb 2016 - Jun 2016

- Invented an outlier detection algorithm achieving state-of-the-art results by leveraging Gaussian mixture models.
- Co-authored a work published in Pattern Recognition Letters journal. Implemented the method in Matlab.

Education

 Ph.D. Computer Science, Grenoble Alpes University, France. [GPA n/a, thesis] 	Sep 2017 – Oct 2021
• M.Sc. Computer Science, Grenoble INP, France. [GPA 16.47/20, summa cum laude, top 2%]	Sep 2015 – Jun 2017
B.Sc. Applied mathematics, MIPT, Russia. [GPA 4.51/5, top ~10%]	Sep 2011 – Jun 2015

Publications

- Sastry, Gilany, Lui, Magill, **Pashevich**. DeepRRTime: Robust Time-series Forecasting with a Regularized INR Basis. In Transactions on Machine Learning Research (TMLR), 2025
- Pashevich, Schmid, Sun. Episodic Transformer for Vision-and-Language Navigation. In ICCV 2021 [github]
- Pashevich, Kalevatykh, Laptev, Schmid. Learning visual policies for building 3D shape categories. In IROS 2020
- Strudel, **Pashevich**, Kalevatykh, Laptev, Sivic, Schmid. Learning to combine primitive skills: A step towards versatile robotic manipulation. In ICRA 2020 [github]
- Pashevich, Strudel, Kalevatykh, Laptev, Schmid. Learning to augment synthetic images for sim2real policy transfer. In IROS 2019 [github]
- Pashevich, Hafner, Davidson, Sukthankar, Schmid. Modulated Policy Hierarchies. In Deep RL workshop, NeurIPS 2018
- Marriott, Pashevich, Horaud. Plane-extraction from depth-data using a Gaussian mixture regression model. PRL

Skills

• Technologies: Python, PyTorch, TensorFlow, Unix, parallel computing, cloud computing, Git, PyBullet.

Domains: Deep imitation & reinforcement learning, control, robotics, computer vision, LLMs, transformers.
 Other: Neural networks, machine learning, distributed GPU & CPU training, data structures, algorithms.

Certifications

• Leadership Principles, Harvard Business School, Online.

Blueprint Management Training, Raw Signal Group, Online.

Nov 2024 - Dec 2024

Jan 2024 - Mar 2024

Scholarships

• Excellence Scholarship of Grenoble INP (2016) – Awarded to the top 2 students from a cohort of ~100 for academic excellence, covering tuition and living expenses.

• French Government Study Scholarship (2015) – A highly prestigious and competitive scholarship for international students pursuing studies in France, covering tuition, accommodation, and living expenses.

Languages

• English, French, Spanish, Belarusian, Russian, Italian

Interests

- Exploring the world by traveling and learning about cultures and history. Visited more than 60 countries.
- Snowboarding, volleyball, and everything related to mountains.