

Vadim Nemytov

6 Anne Greenwood Close,
Iffley, Oxford,
OX4 4DN, UK,
EU citizen, UK permanent resident

☎ (+44)79 8282 8643
✉ vadim.nemytov13@imperial.ac.uk
🌐 https://github.com/VadimNV/CV_and_supporting
🌐 www.linkedin.com/in/vadim-nemytov

Education

Ph.D Theory and Simulation of Materials	Imperial College London	2014 – 2018
M.Sc. Theory and Simulation of Materials • 1st class	Imperial College London	2013 – 2014
M.Sc. Condensed Matter Theory and Modelling • 3.36/4.0 GPA (UK 1st class)	McGill University, Canada	2011 – 2012
B.Sc. Joint Honours in Mathematics and Physics • 3.72/4.0 GPA (UK 1st class)	McGill University, Canada	2007 – 2011
Highschool Diploma • average 88/100 (UK A*A*A*)	Northview Heights, Canada	2004 – 2007

Computational Tools

Experienced: Python, Fortran, Mathematica, Matlab, Linux, Bash scripting, Git, HPC¹, OpenMP

Some experience: C++, Deep Learning and AWS (online course Fast.AI)

Experience

Ph.D. Researcher	Imperial College London	Oct. 2014 – Dec. 2018
<ul style="list-style-type: none">• Wrote a Python interface to automatically run software packages and custom codes, linking input/output in a concerted manner, to calculate material properties in simulated experiments• Wrote an object-oriented Python code to test models' ability to reproduce accurate reference data• Using test-driven approach, implemented new features into a large, shared Fortran code, via Git• Trained models by minimizing a gradient-free error function defined on large sets of reference data• Proposed, implemented an $O(2)$ faster way of finding a self-consistent solution during model fitting• Enabled computer simulations of a new class of materials – a first of their kind in my field		
M.Sc. project	Imperial College London	Oct. 2013 – Sep. 2014
<ul style="list-style-type: none">• Implemented a module in C++ and integrated it (via Git) as part of a group software project		

¹High Performance distributed Computing

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| Outreach Postgraduate Ambassador | Wohl Reachout Lab, Imperial | Oct. 2014 – Dec. 2017 |
| <ul style="list-style-type: none"> Designed and delivered day-long workshops for students aged 14 - 17 on a set topic, which consisted of talks, demonstrations, visualizations, exercises and hands-on labs Developed workshop material for, and trained, newly qualified Outreach Ambassadors | | |
| Materials model developer, Researcher | Materials Design s.a.r.l. Internship, Paris | Sep. 2016 – Dec. 2016 |
| <ul style="list-style-type: none"> Achieved a set task of parametrizing a pair-additive model for NaCl, novel in its ability to reproduce <i>both</i> the solid and the molten states. Integrated it into company's proprietary MedeA software | | |
| Funding team leader, School co-organizer | Hermes Summer School 2016
Materials Modelling & Sci. Comm. | Oct. 2014 – Dec. 2017 |
| <ul style="list-style-type: none"> Led a funding team, raising £10730, balancing £25900 budget, with a surplus enabling 5 fully-funded scholarships for attendees from developing countries Co-designed the summer school, deciding on the topic structure, series of communication workshops and individual and group tasks. | | |
| M.Sc. Project | McGill University | June 2011 – Dec. 2012 |
| <ul style="list-style-type: none"> Implemented a Tight-Binding model in Matlab representing the Bi₂Se₃ Topological Insulator Formed a hypothesis that Cd₃As₂ is a new Topological Insulator; confirmed two years later² Extended a Finite Differences Matlab code to simulate quantum transport of electrons in Bi₂Se₃ | | |
| Sales and Marketing Analyst | XLN Telecom, London | Mar. 2007 – Aug. 2007,
May 2008 – Aug. 2008 |
| <ul style="list-style-type: none"> Developed the metrics to monitor and analyze the quality and performance of the Sales team Analyzed call recordings, selected cases for staff training and team enhancement purposes As a Sales Manager's assistant, prepared daily and weekly reports on team related metrics | | |

Awards

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| • Director's List mention for 80%+ MSc final average, Imperial College | 2014 |
| • Rubin Gruber Scholarship (1,000 \$), McGill University | 2008 |
| • Jeffery Scholarship in Science (2,000 \$), McGill University | 2008 |
| • J.W. McGonnel Award (1,000 \$), McGill University | 2008 |
| • Golden Key International Honours Society – membership by invitation | 2008 |

Interests, Languages

- Interests: Football; indoor bouldering; dancing swing, improvised; reading Fiction, Economics, Philosophy, History, Mathematics; discovering own city by bike, country by visiting cities
- Languages: English, Russian, Lithuanian; Beginner's French.

²digitool.library.mcgill.ca/thesisfile114415.pdf, Nature Materials 13, 677 - 681 (2014)