

VISHANK KUMAR

@ Email: vishank.iitk@hotmail.com
Phone: +32-493540918
LinkedIn: www.linkedin/in/vishankkumar
Address: Rue P. J. Redouté 3/002, 1348 Louvain-la-Neuve, Belgium



PROFILE

Material scientist with over 6+ years of diverse international experience in theoretical and experimental materials science with 2 years of professional experience in data science. Key expertise includes computing material properties from first-principles DFT and classical potentials based methods. Trained in code profiling and parallelization on high-performance computing clusters and statistical data analysis. Fluent in English, Hindi and French (B1), and ability to develop peer relationships across cultures for effective collaboration.

RESEARCH EXPERIENCE

Avesta Battery & Energy Engineering (ABEE), Belgium <i>Atomistic Modeling Researcher</i>	<i>May'20-Present</i>
Institute of Condensed matter and nanosciences (IMCN), Belgium <i>Doctoral student, Xavier Gonze's ABINIT research group</i>	<i>Oct'15-Apr'20</i>
University of British Columbia, Canada <i>Graduate Research Assistant, Metalcasting laboratory of Lukas Bichler</i>	<i>May'13-May'15</i>

EDUCATION

PhD in Engineering Sciences and Technology Universite Catholique de Louvain (UCL), Belgium Thesis: "First-principles study of lithium diffusion in silicon based lithium ion battery materials"	<i>Oct'15-Mar'20</i>
Master of Applied Science, Mechanical Engineering The University of British Columbia (UBC), Canada Thesis: "Grain refinement of B319 aluminum alloy"	<i>May'13-Sep'15</i>
Bachelor of Technology, Materials & Metallurgical Engineering Indian Institute of Technology Kanpur (IITK), India B. Tech Project: "Recovery of copper from industrial brass polishing waste"	<i>Jul'07-May'11</i>

TECHNICAL SKILLS

Coding: Python (numpy, scipy, pandas, scikit-learn), C++, SQL, and Github platform
Theoretical methods: *Ab initio* methods (DFT, DFPT), classical molecular dynamics, KMC, FEM
Scientific packages: ABINIT, LAMMPS, USPEX, Pymatgen, Abipy, MATLAB

SCIENTIFIC COMMUNICATION

- Published 5 papers in international peer reviewed journals (4) and conference proceedings (1)
 - Presented my work at several international conferences discussing ideas and gathering feedback from experts
-

TRAININGS AND SUMMER SCHOOLS

Training for scientific computations on High Performance Computing (HPC) clusters, <i>Belgium</i>	<i>Oct, 2018</i>
CECAM school on "Teaching Theory in Density Functional Theory", <i>EPFL, Switzerland</i>	<i>Jun, 2017</i>
"College on Multiscale Computational Modeling of Materials for Energy Applications", <i>Italy</i>	<i>Jul, 2016</i>

LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

- President of the Association of Reserachers of IMCN (ACIM) at UCL
- Finance Head, of Techkriti'11 (Annual Technical Festival of IIT Kanpur)
- Playing chess; nature and portrait photography; rock climbing, hiking, and ice-skating