

DEVANG BHAGAT

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SUMMARY

Computational materials scientist with expertise in density functional theory (DFT), machine learning for materials discovery, and high-performance computing (HPC). Experienced in studying transition metal oxides, defect dynamics, and electronic structure analysis. Passionate about leveraging computational techniques to solve real-world scientific challenges. Additionally, skilled in web development, creating dynamic and user-friendly interfaces for research and data visualization

EDUCATION

University of Louisville

Candidate for Ph.D. in Mechanical Engineering

Louisville, KY

Expected December 2025

M.S. in Mechanical Engineering

December 2019

University of Mumbai

B.E. in Automobile Engineering

Mumbai, India

August 2016

SKILLS

Programming Languages: Python, HTML, LaTeX, JavaScript (beginner), React Native(beginner)

Software: VASP, Wannier90, Lobster, TRIQS, MATLAB, SolidWorks, MS Word, MS Excel, MS PowerPoint

Languages: English (fluent), Hindi (national), Marathi (native), Gujarati

RESEARCH EXPERIENCE

University of Louisville

Graduate Research Assistant

Louisville, KY

August 2020 – Present

- Performed Density Functional Theory (DFT) calculations to analyze material properties, leveraging computational modeling techniques.
- Developed and optimized Python scripts to automate data extraction, preprocessing, and workflow automation, improving efficiency.
- Applied data analysis and visualization techniques to interpret research findings and presented insights to advisor and colleagues.

PROFESSIONAL EXPERIENCE

Ixia Solutions

Content Writer

Mumbai, India

2016 – 2017

Core member of the mathematics teams

- Designed rigorous formative assessments for students.
- Conducted internal and external review fixes for questions constructed.
- Co-related each question to its corresponding topic and previous understanding required by student.
- Completed packaging of overall product including various topics per state guidelines.

PUBLICATIONS

3 first author. 4 co-authors. (2 first author manuscript under preparation.)

CERTIFICATIONS

Machine Learning Specialization by Andrew Ng (In Progress)

VOLUNTEER & ACTIVITIES

- Designed a website [Around the Ville](#).
- Note taker for Disability Resource Center at University of Louisville.
- Mover for Student Housing in University of Louisville.
- Fraternity member of Lambda Chi Alpha.