

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 transition metal oxides, defect dynamics, and electronic structure analysis. Applies computational techniques and data science methodologies to address scientific challenges. Proficient in data analysis, visualization, and modeling, with a solid foundation in statistical methods and programming. Skilled in web development, creating user-friendly interfaces for research and data visualization.

SKILLS

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

Software: VASP, Wannier90, Lobster, GitHub, MongoDB (familiar), TRIQS, MATLAB, SolidWorks

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

EXPERIENCE

Graduate Research Assistant | University of Louisville

Louisville, KY | August 2020 – Present

- Conducted **500+ Density Functional Theory (DFT) simulations**, optimizing material properties for energy applications.
- Developed **10+ Python scripts**, automating **80%** of data extraction, preprocessing, and workflow tasks, improving efficiency.
- Analyzed and visualized **100GB+ of computational data**, identifying key material trends and presenting findings in **5+ research meetings**.
- Co-authored **4 research papers**, contributing to advancements in computational material science.

Content Writer | Ixia Solutions

Mumbai, India | November 2016 – November 2017

- Designed **200+** formative assessments aligned with state education standards, enhancing student learning outcomes.
- Conducted **50+ internal and external reviews**, ensuring content accuracy and compliance with educational frameworks.
- Mapped **1000+** questions to corresponding topics, improving knowledge tracking and curriculum development.
- Led content packaging for **5+ major educational products**, streamlining material delivery and usability.

EDUCATION

University of Louisville

Louisville, KY

Candidate for Ph.D. in Mechanical Engineering

Expected December 2025

M.S. in Mechanical Engineering

December 2019

University of Mumbai

Mumbai, India

B.E. in Automobile Engineering

August 2016

PUBLICATIONS

2 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 <https://aroundtheville.com/>.
- Note taker for Disability Resource Center at University of Louisville.
- Mover for Student Housing in University of Louisville.
- Fraternity member of Lambda Chi Alpha.