

# Gaurav Amrutrao Patil

(906) 319-8940 | gpatil3@mtu.edu | linkedin.com/in/gauravpatil87

As a master's student in Electrical Engineering at Michigan Technological University, with expertise in power systems, smart grids, and renewable energy, I aim to apply my academic and hands-on experience in High Tension networks to contribute innovative solutions in the energy sector. I seek a challenging career where I can leverage my technical and leadership skills to drive impactful projects, while continuously discovering and expanding my potential in a professional environment.

## EDUCATION

- **Michigan Technological University, Michigan, USA** [Fall 2026]  
*Master of Science in Electrical Engineering GPA: 3.85/4*  
*Concentration: Power System Protection*  
**Coursework:** Electrical Power System Protection, Power System Analysis 2, Power Control Centre Applications
- **Smt. Indira Gandhi College of Engineering, Navi Mumbai, India** [2019-2022]  
*Bachelor of Engineering in Electrical Engineering CGPA: 8.71/10*
- **Vidya Prasarak Mandal's Polytechnic, Thane, India.** [2016-2019]  
*Diploma in Electrical Power System. Percentage: 75.33%*

## RELEVANT EXPERIENCE

- **Michigan Technological University – Research Assistant** [Aug 2025 - Present]
  - Currently working as a Research Assistant under Dr. Flavio on a project with Consumers Energy, focusing on fault detection in distribution systems using traveling wave techniques. Supporting ongoing research by assisting a PhD student with simulations, data analysis, and validation to enhance fault location accuracy.
- **Michigan Technological University –Teaching Assistant** [Jan 2025 - Present]
  - Conducting lab sessions for EE4228 Power Electronics, providing guidance during experiments and promoting student understanding.
  - Assisted Grading students for EE2112 Electrical Circuits 2, EE2190 Introduction to Photonics in Spring 2025 with valuable feedback.
- **Executive Engineer, Torrent Power Ltd., Bhiwandi, India** [June 2023 - July 2024]
  - Supervised 22kV and 11kV feeders, substation, RMUs, and switchgear operation & maintenance.
  - Managed control center operations and trained technicians, maintaining a zero-accident record.
  - Conducted 400 V and above testing of protection systems and collaborated on SCADA integration with HV equipment.
- **Graduate Engineer Trainee, Torrent Power Ltd., Bhiwandi, India** [Jun 2022 – Jul 2023]
  - Oversaw power restoration, material tracking, reconciliation, and vendor billing.
  - Led and executed a system earthing improvement project, improving safety and reliability.
- **Internship Trainee, TATA Power Ltd., Kalyan, India** [Dec 2021 – Jan 2022]
  - Gained hands-on experience at 110/22 kV receiving station with transformers, SCADA systems, AIS/GIS Systems
  - Assisted in HV testing and troubleshooting of substation assets.

## PROJECT EXPERIENCE

- **Radial Feeder Protection from Reverse Power Flow Using SEL751 Microprocessor Relay** [Spring 2025]  
*Designed and implemented radial feeder reverse power flow protection using SEL-751 relay, including configuration, logic programming, simulation, testing, and fault analysis to ensure reliable system operation.*
- **Simulation And Analysis of Inrush and CT Saturation for Transformer Differential Protection** [Spring 2025]  
*Modeled transformer differential protection with harmonic restraint, simulated CT saturation, and analysed waveforms to optimize fault detection and system reliability.*

## TECHNICAL SKILLS

- **Tools:** Power Systems, System Design & Optimization, Control Center Operations, Project Management, Substation Management, Fault Analysis & Troubleshooting, Switchgear Protection & Testing
- **Software:** SAP Bi, AutoCAD, MS Office, MATLAB, AcSEerator QuickSet®, Aspen