Contact:

ninad.gaikwad@wsu.edu

+1 352-871-4669

Spokane, WA, USA

Web Presence:

Personal Website

@ninadkirangaikwad

@ninadkgaikwad

N. Gaikwad

N. Gaikwad

N. Gaikwad

@ninadkgaikwad

@NinadKiran

@ninadkgaikwad

Laguages:

Marathi	Native
Hindi	Native
English	Proficient
French	Basic

Soft Skills:

Communication	Excellent
Team-Player	Excellent
Writing	Good
Leadership	Good

Ninad Kiran Gaikwad

PhD Candidate / Research Assistant

Work experience

Graduate Research Assistant **Jan 2022 - Present**

Electrical Engineering and Computer Science Department, WSU

- Research is focused on intelligent control of networked buildings.

Machine Learning Intern **May 2023 - Aug 2023**

Research & Development Group, Edo Energy

- Developed state/parameter estimation algorithms for building thermal models.

Research Intern **May 2021 - Aug 2021**

Energy Systems Control and Optimization Group, NREL

- Performed analysis and developed a GUI-based application for stability analysis of the two-bus inverter-based microgrid system.

Graduate Assistant **Aug 2018 - Dec 2021**

Mechanical & Aerospace Engineering Department, UFL

- Developed MPC and RL-based algorithms for home energy resiliency.

Research Consultant **June 2018 - July 2018**

Centre of Excellence in Complex and Nonlinear Dynamical Systems, VJTI

- Trained two graduate students to set up a self-developed renewable energy forecasting system (SWEEFA-V1.0).

Consultant **Dec 2017 - May 2018**

Technology and Digital Innovation Group, Mytrah Energy

- Trained a team of three in data analytics and worked on the development of a real-time renewable energy forecasting system.

Assistant Professor **Jan 2017 - June 2017**

Electrical Engineering Department, SPCE

- Taught a graduate course on the application of power electronics in renewable energy systems.

Jr. Project Fellow **Aug 2016 - Jan 2017**

Gujarat Energy & Research Management Institute

- Supported the institute's training programs in renewable energy and continued the development of the renewable energy forecasting system (SWEEFA)

Research Intern **Aug 2015 - June 2017**

Gujarat Energy & Research Management Institute

- Developed a complete GUI-based application for renewable energy forecasting using ANN, ARIMA and NWP.

⋮

Note: Exhaustive list of experiences present in CV

Power Systems Software:

Programming Skills:

MATLAB	Excellent
Python	Excellent
Julia	Good
C	Basic
C++	Basic

Energy Systems Software:

SimPowerSystems	Excellent
OpenDSS	Good
MATPOWER	Basic

Energy Systems Software:

EnergyPlus	Excellent
PVSyst	Good

Optimization Packages:

Gurobi	Excellent
CasADi	Excellent
CVX	Good
Pyomo	Basic
JuMP	Basic

ML Packages:

TensorFlow	Good
PyTorch	Basic

RL Packages:

TensorForce	Good
RL-Coach	Basic
tf_agent	Basic

Education

PhD in Electrical Engineering and Computer Science
Jan 2022 - Present

Washington State University (WSU), Pullman

Major areas of study: Power Systems Analysis, Power Systems Dynamics and Control, and Estimation Theory.

MS in Computer Science
Jan 2022 - Present

Washington State University (WSU), Pullman

Major areas of study: Machine Learning, Data Science, and Algorithmics.

MS in Mechanical Engineering
Aug 2018 - Dec 2021

University of Florida (UFL), Gainesville

Major areas of study: Control Theory, Probability, Optimization, Machine Learning and Reinforcement Learning.

MTech in Electrical Engineering
Aug 2014 - June 2016

Sardar Patel College of Engineering (SPCE), Mumbai

Major areas of study: Electrical Machine Analysis, Power Electronic Drives, Power System Dynamics and Control.

MProfEng in Electrical Engineering (One Semester)
Feb 2014 - June 2014

University of Wollongong (UOW), Wollongong

Major areas of study: Power Systems and Renewable Energy Technologies.

BTech in Electrical Engineering
Aug 2008 - June 2012

Veermata Jijabai Technological Institute (VJTI), Mumbai

Major areas of study: Power Engineering and Control Systems.

Publications

Reinforcement Learning-Based Home Energy Management System for Resiliency, Oral Presentation at ACC-2021, IEEE Conference, May 2021, New Orleans, USA

Smart Home Energy Management System for Power System Resiliency, Oral Presentation at CCTA-2020, IEEE Conference, August 2020, Vancouver, Canada

On The Development of Solar & Wind Energy Forecasting Application Using ARIMA, ANN And WRF in MATLAB, Oral Presentation at INDIACom-2017, IEEE Conference, March 2017, Delhi, India

Photovoltaic Grid Connected Plant Energy Estimation Application in MATLAB, Oral Presentation at PVSEC-26, October 2016, Singapore