# Natnael Taye Daba

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## Education

**Ph.D. Electrical and Computer Engineering** — Tucson, AZ
*University of Arizona* — Aug 2022 – May 2027
Advisor: Prof. Abhijit Mahalanobis, GPA: 4.0/4.0
Transfer with advisor from the University of Central Florida
*Ph.D. in Computer Science, Jan 2021 – Aug 2022*

**M.S. Electrical and Computer Engineering** — Pittsburgh, PA
*Carnegie Mellon University* — Aug 2018 – Dec 2019
Advisor: Prof. Vijayakumar Bhagavatula, GPA: 3.88/4.0

**B.Sc. Electrical and Computer Engineering** — Addis Ababa, Ethiopia
*Addis Ababa University* — Oct 2012 – Jul 2017
Advisor: Dr. Beneyam Haile, GPA: 3.83

- Thesis: Implementation of Indoor Positioning System using Wi-Fi signals

## Experience

**Graduate Research Assistant** — Tucson, Arizona
*Integrated Sensing and Processing Lab (ISPL), University of Arizona* — Aug 2022 – May 2027
Currently working on computer vision algorithms for visual-based localization with infrared and point cloud data in GPS-denied environments. Also working on adapting image classification and detection models to changing class priors during deployment.

**Graduate Research Assistant** — Orlando, FL
*Center For Research in Computer Vision, UCF* — Jan 2021 – Aug 2022
Worked on small target detection in infrared and RGB satellite imagery.

**Machine Learning Engineer** — Kigali, Rwanda
*mDoc Healthcare* — Jun 2020 – Dec 2020
Designed and implemented a conversational and FAQ chatbot using Google's Dialogflow to help doctors answer questions from patients.

**Software Engineer** — Addis Ababa, Ethiopia
*WebSprix IT Solutions* — Aug 2017 – Aug 2018
Customized an Enterprise Resource Planning (ERP) web application which reduced the number of manual office work by approximately 30% by converting routine internal office tasks to electronic.

## Publications

1. **N. Daba**, B. McIntosh, A. Mahalanobis
   *Adapting Classifiers To Changing Class Priors During Deployment*
   ECML PKDD workshop, 2023 **Runner-up best paper award winner.**

## Projects

- Design and implementation of a 3D pong game for the Oculus Quest VR headset, 2019
- Image-based localization with multimodal data for GPS-denied environments, 2022 - 2024 (current project)
- Reinforcement Learning strategy for Combined Arms large-scale team battle, 2022

## Skills

**Programming Languages and Tools**: C/C++, Python, MATLAB, JavaScript

**Machine Learning Frameworks/APIs**: PyTorch, Gym, PettingZoo

**Publishing Tools**: Git, LaTeX

**Simulation and Design Tools**: Unity, Oculus Go and Oculus Quest