

PIYUSH AGADE

Gainesville, FL

(724) 467-3597
pagade@ufl.edu
<https://piyushagade.xyz>

EDUCATION

University of Florida, Gainesville, FL

August 2019 – May 2025

- PhD student at **Agriculture and Biological Engineering**, GPA: 3.67
- **Concentration**: Hydrological Sciences
- **Skills developed**: Field work, experimental design, 3D designing and printing, Circuit designing, web server and dashboard development, mobile application development, and professional communication.

University of Florida, Gainesville, FL

Sept 2015 - April 2017

- Master of Science in **Computer Science**, GPA: 3.43
- **Coursework**: Computer Networks; Database Management Systems; Machine Learning for Health Applications; Social Network Computing; Software Engineering; Pattern Recognition.

University of Pune, Pune, India

Sept 2010 - May 2014

- Bachelor of Engineering in **Electronics and Telecommunications**, First Class with Distinction
- **Coursework**: Network Analysis, Signals and Systems, Digital Electronics & Design, Microcontrollers and Applications, Soft Computing, Solid State Devices and Circuits, Digital Communications.

PROFESSIONAL EXPERIENCE

Graduate Assistant

University of Florida

Aug 2019 – May 2024

- Developed GatorByte platform - a compact, inexpensive, Lagrangian water quality monitoring drifter.
- The platform includes a custom fabricable datalogger and electronics, web server application, web visualization dashboard, a desktop (MacOS, Windows and Linux) configuration application, and a mobile application (iOS and Android) dashboard.

[GatorByte demonstration video](#)

OPS Web Developer

PREC, University of Florida

Sept 2017 – Aug 2019

- Developed python scripts for preprocessing the raw water consumption data from multiple water utilities in Florida and derive higher level insights using the raw data.
- Developed a suite of web apps (**H2OSAV**) to help visualize the derived insights over a map spanning the service area of the utilities using NodeJS, CGI, SQLite, Crossfilter.JS and Leaflet.JS).
- Helped design a workflow/pipeline that simplified, standardized, and sped up fetching the raw data from the clients and converting it into clean, usable, and meaningful information.

[Exploratory Tool demonstration video](#) [Analysis Tool demonstration video](#)

Student Research Assistant

Intelligent Health Systems Lab

Sept 2016 – Jan 2016

- Analyzed a corpus of medical journals, extracted, and visualized various interesting information using **NLTK**, **Python** and other python libraries.

Backend Developer Intern

Filtrest, Inc.

July 2016 – Aug 2016

- Designed, developed, and populated the database and lookup algorithms for the system using **Python** and APIs of popular social networking sites like Twitter, and Reddit.
- Constructed a relational database for storing the data obtained by lookup algorithms.

PROFESSIONAL PROJECTS

GatorByte (NodeJS, EAGLE, Arduino, SolidWorks, HOBO, ISCO, YSI, OTT)

Feb 2018 - Present

- Developed the firmware, back-end/data storage and web visualization for a portable water quality monitoring device based on Arduino.

- Developed a platform to gather and process water usage data and display the derived insights using a collection of web-apps.

ACADEMIC PROJECTS

Psyc (Electron, jQuery, JavaScript, CSS)**Feb 2017 – May 2017**

- Designed a notetaking, to-do manager, and a desktop widget app for Linux.

Ultrasound Nerve Segmentation (Python, Keras, SciPy, NumPy)**Aug 2016 – Dec 2016**

- Fashioned a machine-learning algorithm to predict the location of Brachial Plexus nerve in ultrasound images of the human neck to aid in surgical preparations.

Statistics System (Oracle database, PHP, jQuery, JavaScript, CSS)**Jan 2016 – April 2016**

- Developed a real-time soccer facts machine using Oracle, PHP, HTML, JS and CSS for the course Database Management Systems which allows users to find interesting correlations among various players, leagues, etc.

Electronic Control Unit & Skid Detection (Arduino, LABVIEW VI)**May 2013 – Dec 2013**

- Developed a system that could detect skidding and estimate other driving parameters such as acceleration and tilt of a bike.

INVOLVEMENT

Vice-president and President**Gator Salsa Club, UF****Aug 2022 – April 2024**

- Served as a Salsa, Bachata and Casino instructor.
- Helped increase the number of members from ~40 to ~120.
- Created a web-based admin console for club affairs management and increase organization and efficiency.

President**UF Kickboxing Club, UF****Aug 2019 – April 2023**

- Helped increase fight team size to 37 compared to 13 in 2018.
- Served as a Boxing instructor.
- Helped increase the number of members from ~20 to ~60.
- Created a web-based admin console for club affairs management and increase organization and efficiency.

Organizer, Lead Web Developer**Texephyr and Summit****Feb 2014**

- Held organizer position and led a team of **web developers** to create the website for annual technical fest at University of Pune.
- Supervised a team of **graphics designers** that created the marketing content for the national sports meet at University of Pune.

Lead Editor & Designer**Resonance****Sept 2013**

- Edited and designed the departmental newsletter for the department of Electronics and Telecommunications at University of Pune.

SKILLS AND TECHNOLOGIES

- Web development** – Java, Python, C, Angular 2, Bootstrap, MySQL, NodeJS, Express, JavaScript, jQuery, PHP, HTML, CSS, MongoDB.
- Mobile and Desktop application** development – Android Studio, Flutter, Firebase, AWS, Electron, Git, Agile, Eagle, Arduino.
- 3D printing and designing, designing circuit boards.
- Working with electronics, diagnosing, and fixing electrical and electronic issues.
- Field skills, I enjoy setting up and doing maintenance on field equipment.