

# TONY NGO (PhD)

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[PORTFOLIO](#)

[GITHUB](#)

[LINKEDIN](#)

## SKILLS

React, Redux, Javascript, Python, C++, Java, Android Studio, Linux, QtCreator, HTML, CSS, SQL, PostgreSQL, Flask, Express, AWS, Heroku, UI/UX, CAD, Autodesk Inventor, PCD design, 3D printing, Arduino, Raspberry Pi, SBC

## PROJECTS

**DRONEST Full-stack web app** (React-Redux, Python/Flask, Javascript/Sequelize, Websocket)

[live](#) | [github](#)

*Art & social website for hosting drone arts with 2 backend servers (SOLO project)*

- Developed frontend with responsive components using React, Redux & JavaScript for a beautiful smooth user interface.
- Employed Flask, SQLAlchemy and PostgreSQL to implement a backend server for storing user and arts data, as well as serving REST API routes, AWS file uploading enabling the application to be fully functional.
- Leveraged Websocket and a second ExpressJS server to implement group instant messaging functionality for users real-time interactions, resulting in an enhanced user experience.

**INSTAVIBES Full-stack web app** (React-Redux, JavaScript, Python/Flask)

[live](#) | [github](#)

*Clone of Instagram - group project of 4, responsible for 40% of workload*

- Implemented Python/Flask backend and most REST API routes, deployed the whole project to Heroku, set up the whole database
- Implemented all the user following/follower features, stories, user profile page, direct messaging functionality

**TRIPCAMP Full-stack web app** (React-Redux, Javascript, Sequelize)

[live](#) | [github](#)

*Clone of [www.Hipcamp.com](http://www.Hipcamp.com) (SOLO project)*

- Implemented JavaScript/Sequelize/PostgreSQL backend server and api routes
- React/Redux frontend, Google Maps API, Social media functionality (friends, messaging, networks)

**VUIR Android App** (Java, C++, JavaScript, QtCreator, XML)

[live](#) | [github1](#) | [github2](#)

*Production application, hosted on Google PlayStore, for businesses and professionals to control their thermal drones*

- Designed Android Apps using Android Studio that allowed real commercial users to perform real-life tasks and collect data.
- Researched and developed hardware and software (C++) for the rover end of the products (part that goes on the drone).

## EXPERIENCE

**Chief Engineer (founder and CEO)**

*sUAS LLC - MD, US*

May 2017 - now

- Develop full-stack software solutions to seamlessly integrate thermal cameras with unmanned aerial vehicles
- Work with clients to understand and decompose requirements, use cases, and storyboards
- Use development tools such as Android Studio IDE, Git Source Code Control to develop solutions in Linux
- Research, Develop and Commercialize 8 product lines that generate \$1M+ in revenue within six months

**Engineer (founder and CEO)**

*intelligentUAS*

Aug 2012 - May 2017

- Designed highly customized and industry-driven UAV suites of products (i.e. property inspection, security surveillance, firefighting) that formed the core of the business and set it apart from competition
- Created product innovations to reduce cost and increase profit margin to 90%
- Established relationships with government agencies and business entities for potential business opportunities
- Collaborated with clients from project concepts to proposal and then final design of solutions

## EDUCATION

**Web Development** - App Academy | Spring 2021

**PhD - Physics** - SISSA Trieste Italy | 2003 - 2006

**Master - Physics** - ICTP Trieste Italy | 2002 - 2003