

TONY NGO (PhD)

CERTS AWS Certified Solutions Architect Associate 2021, Active Public Trust

SKILLS AWS, Java, C++, Python, Node.js, JavaScript/TypeScript, Android Studio, Linux, React/Angular/Vue, HTML/CSS, Postgres/Oracle, PL/SQL, Drone, QtCreator, Arduino/Raspberry Pi, Jira, Confluence, Jenkins, git, github, Bitbucket

[GITHUB](#)

[LINKEDIN](#)

EXPERIENCE

Senior Software Engineer *Capital One - VA, US*

May 2021 - **present**

- Act as tech lead, guide and mentor other developers, ensure team productive deliveries to meet business goals
- Use a full range of AWS services for developing web modules and use Jenkins for CI/CD deployment
- Use Java & Spring Boot to develop backend web microservices and JavaScript Angular/Vue to develop frontends
- Design and architect microservices and UI solutions from ground up; consistently deliver prod quality code since day 3

Chief Engineer *sUAS LLC - MD, US*

May 2017 - May 2021

- Founded the business and grew it to become one of the top specialized thermal vision drone companies in US
- Lead a team of engineers to develop full-stack software/hardware drone payloads and commercialized their use
- Leveraged development tools (Android Studio IDE, Java, C++, Qt Creator) to develop drone solutions in Linux
- Worked with government and commercial clients to ensure both functionality and technical feasibility were met
- Researched, developed and published innovative product ideas in the field of thermal vision for drone industry

Engineer *intelligentUAS*

Aug 2012 - May 2017

- Founded the business and grew it to become one of the top commercial drone companies in US
- Managed and lead an organization comprised of 23 people and 5 departments with \$7MIL annual revenue
- Designed suites of products that formed the core of the business and set it apart from competition
- Introduced innovative product features that reduced material cost and increased profit margin by 90%
- Established relationships with government agencies and business entities for potential business opportunities

Faculty Researcher *University of Maryland*

Dec 2006 - Aug 2012

- Researched and performed simulation of DNA and proteins, published 11+ scientific papers with 400+ citations
- Co-supervised 3 graduate students in finishing their PhD degrees.
- Google Scholar profile: <https://scholar.google.com/citations?user=P8aALscAAAAJ>

PROJECTS

DRONEST Full-stack Web App (React-Redux, Python/Flask, Javascript/Sequelize, Websocket) [dronest.com](#) | [github](#)

Social media platform where drone enthusiasts connect and share aerial photos/videos; triple servers

- Developed responsive components on the frontend, using React & JavaScript for a clean and intuitive user interface
- Utilized Flask, SQLAlchemy & PostgreSQL for the backend to serve REST API routes and store media on AWS S3
- Leveraged Websocket & ExpressJS to create a third server that hosts instant group messaging to engage users

INSTAVIBES Full-stack Web App Clone of Instagram (React-Redux, JavaScript, Python/Flask)

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

- Employed React, Redux & JavaScript to implement 'Following', Messaging, User Profile and the 'trendy Stories' features, enhancing overall user engagement and UX
- Implemented backend with REST API routes and Postgres Database using Python/Flask and AWS S3 file hosting

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 to allow real-time equipment control and data collection
- Researched and developed hardware and software (C++) to integrate drones with their payloads

EDUCATION

PhD - Physics – *Scuola Internazionale Superiore di Studi Avanzati (SISSA). Trieste, Italy, 2006*

Master - Physics - *International Centre for Theoretical Physics (ICTP). Trieste, Italy, 2003*