William J. Piedra

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Objective

I am seeking a position as an Application Developer for DJI or ArduPilot drones. I have been building and flying drones since 2012, and have been flying radio controlled aircraft for more than 30 years.

Experience

CEO – FLYING ROBOTS LLC **2014-Present**

- Architect/Lead Engineer – FedEx FAA UAS Integration Pilot Program Site – Recruited by FedEx in 2018 to develop a system using Drones, Machine Vision and Artificial Intelligence to inspect aircraft as part of the FAA's UAS Integration Pilot Program. The system we developed is currently in use by FedEx to inspect aircraft on the ramp at Memphis Shelby International Airport. To date FedEx has successfully performed more than 200 inspections, some as close as 1500 feet from the active runway at Memphis Shelby International Airport.
- Created a number of unique drone applications, some of which attracted international media attention. My most famous project was called Project Ryptide, a drone that delivered a life preserver. It appeared on every major morning talk show and was the subject of an Episode of Inside Edition. I am now writing code to that uses a Seek Thermal Camera to locate and fly to a person in the water autonomously. I wrote the driver for the camera in C++/Linux.
- I recently completed building an application for a small startup that automates the inspection of cell phone towers. The purpose of the application was to programmatically build missions for DJI Drones, so that the precise mission could be repeated. We were also building a Machine Vision/AI component that would compare images from previous mission for damage mitigation after events like Hurricane Irma, last year.

QUALCOMM – DEVELOPER ADVOCATE FOR QUALCOMM SNAPDRAGON FLIGHT 2016-2018 ■ I worked as a contractor for Qualcomm and their advanced flight controller, Snapdragon Flight. My primary role was to assist other developers with coding projects and serve as a resource to manufacturers and Qualcomm's internal engineering team.

- The program ended when Qualcomm discontinued manufacturing Snapdragon Flight.

THE SCIENCE CHANNEL – TV SERIES DRONED **JANUARY TO JUNE 2016**

- I was originally hired as a technical consultant for a TV Series produced by the Science Channel about drones called DRONED. After shooting the first episode the producers invited me to be a cast member, where I built and flew all of the drones on the show.
- Some highlights were building a turbine-powered airplane for Juan Pablo Montoya, the racecar driver, and a VTOL airplane multicopter hybrid for Tyler Perry. The show aired globally starting in July 2016 in 144 countries and will be appearing soon on Hulu.

DJI DEVELOPER CHALLENGE 2016 JANUARY- AUGUST 2016 ■ I was selected as one of the 25 finalists for the DJI Developer Challenge 2016 and was issued a DJI Matrice 100 and Manifold computer. The contest involved programming the Manifold to make the Matrice 100 locate 'survivors' in a simulated search and rescue mission and then land on the back of a moving truck using April Tag as a landing target. I made it as far as Phase 3, when they selected the final five contestants. I did not win but I was honored to participate.

- I am a also good friend of Brendan Schulman at DJI. He mentioned on of my drone projects in his testimony to the United States Senate. His testimony led me to be invited by Senator John Thune to assist in drafting the FAA Reauthorization Act of 2017 – S1405.

ENTERPRISE COMPUTING, INC. 1989-2003 ■ I started working as an independent software consultant for Dr. John Cassidy, the Director of Research for United Technologies Corporation writing mission critical business applications, as well as programming embedded systems for some of their products.

- I grew the business from a one man consulting operation to 52 full time employees and 20 outside consultants. We assisted in the first large scale deployment of SAP in the United States, as well as wrote embedded systems software for the PW4000 Jet Engine and RL10 Rocket Motors, and participated on building custom software for their jet burner test stand and testing facility in West Palm Beach, Florida.
- I told the company to Computer Sciences Corporation in 2003 for an 8 digit sum and retired for some time, primarily working with STEM students at a local private high school. One group of students developed and deployed an application for Macintosh which one the best new indie product award at MacWorld 2007. They also got to me both Steve Job and Steve Wozniak, who was kind enough to give the kids his phone number in case they needed help, which they did utilize.

Education

NATHANIEL HAWTHORNE COLLEGE 1980-1983

I studied aeronautical science and engineering as well as earned my Commercial Instrument Pilots License and accumulated more than 500 hours flying time. During the break between my junior and senior year, I landed a job as manager of a small computer store for the J.L. Hammett Company.

During that time, I began to work as a consultant for General Electric in Fairfield CT. That consulting assignment is what led to my consulting job for United Technologies Research Center, where I spent 14+ years growing my software consulting company from 1 man to more than 70, and then selling it and retiring for a while.

Skills

I am intimately familiar with the DJI SDK, as well as ArduPilot stack and can code a number of languages including Python, C++, Java and JavaScript, and others and also have expert level .NET and SQL Server development experience.

I also have a great deal of experience at designing software applications, and building and leading teams of developers to build large scale software applications and system, as well as supporting them.