# **Benjamin Folks**

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## **Aerospace-Software Engineer**

Aims to combine Aerospace Engineering background, Software Engineering experience, and real-world aviation experience gained as an *FAA Certified Instrument-Rated Pilot*.

## **Work Experience**

## RedShelf • Chicago, IL • January 2018 - Present

Content delivery system for providing digital materials to educational institutions

### **Software Engineer**

- Work within an Agile software engineering team using SCRUM methodology
- Construct unit, integration, and acceptance (Selenium) tests in Python in order to deliver testable and maintainable code
- Design and maintain SSO authentication service based on SHA256 algorithm in Python
- Layout and implement Data Model for an entirely new collaboration tool designed to allow universities to manage material/pricing data for all courses
- Create new architectures to centralize business logic and maintain clear domain layers
- Build API endpoints allowing authenticated clients to access read/write operations

## AdThrill • Chicago, IL • December 2017 - Present, (Part-Time)

Start-up website for users to watch and rate advertisements (adthrill-prod.herokuapp.com)

## **Lead Python Engineer**

- Compile/analyze all user-response data and allow businesses to view their corresponding results via graphical representations on a web-based UI
- Create Python algorithms to optimize searches between businesses and target audiences

### DP Technology - ESPRIT • Rosemont, IL • July 2012 - December 2017

Developer and supplier of computer-aided manufacturing (CAM) software for CNC machine tools

### **Senior Applications Engineer**

- Create technical designs and determine machining processes/tooling necessary for manufacturing aerospace turn-key parts
- Build CAD designs and assemblies of dynamic machine models using SolidWorks 3D CAD
- Plan and create VB.NET/VBA applications within the ESPRIT API to automate the programming of fully functional programs for CNC mills, lathes, and multitasking machines
- Traveled onsite to over 35 aerospace and US government clients, including NASA Glenn, Woodward Inc, and Tinker AFB, in order to oversee technical projects and training classes

#### **Technical Skills** (rated from 1-10)

# **Programming Languages & Frameworks:**

Python	•••••	Django/DRF	••••••
HTML/CSS	••••••	JavaScript/Ember.js	••••••
VB.NET/VBA	••••••	C++	•••••00000

### **Design Tools (CAD):**

SolidWorks 3D CAD •••••••

ESPRIT CAD/CAM •••••••

#### Education

BS Aerospace Engineering • University of Illinois at Urbana-Champaign • 2011 FAA Certified Private Pilot - Instrument Rating

Certified SolidWorks Mechanical Design Professional • Certified Professional Scrum Master I