

## Benjamin Folks

E: [bfolks2@gmail.com](mailto:bfolks2@gmail.com) • M: (630)-217-5872

[bfolks2.pythonanywhere.com](http://bfolks2.pythonanywhere.com), [www.benfolks.com](http://www.benfolks.com), <https://github.com/bfolks2>

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### Aerospace-Software Engineer

Aerospace Engineer with seven years of Manufacturing, Design, and Software experience, along with real-world aviation experience gained as an **FAA Certified Instrument-Rated Pilot**.

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### Work Experience

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

*Content delivery system for providing digital materials to educational institutions*

##### Software Engineer

- Work within an Agile engineering team using SCRUM methodology and continuous integration
  - Create unit, integration, and acceptance (Selenium) tests in order to deliver maintainable code
  - Build API endpoints allowing authenticated clients to access read/write operations
  - Manage scheduled and on-demand asynchronous Python tasks using Celery
  - Design and maintain SSO authentication service based on SHA256 hashing algorithm in Python
  - Write efficient SQL statements and memoize results of complex queries to improve performance
  - Setup new architectures to centralize business logic and maintain clear domain layers
  - Layout and implement the Data Model for an entirely new collaborative data management tool
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#### AdThrill • Chicago, IL • December 2017 – Present, (Part-Time)

*Start-up website for users to watch and rate advertisements ([adthrill-prod.herokuapp.com](http://adthrill-prod.herokuapp.com))*

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

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

##### Senior Manufacturing-Software 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
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### Technical Skills *(rated from 1-10)*

#### Programming Languages:

Python	●●●●●●●●○	JavaScript	●●●●●●●●○
HTML	●●●●●●●●○	CSS	●●●●●●●●○
VB.NET/VBA	●●●●●●●○	C++	●●●●●●○○○

#### Frameworks & Technologies:

Django/DRF	●●●●●●●●○	Ember.js	●●●●●●●●○
PostgreSQL	●●●●●●○○○	AWS	●●●●○○○○○

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### 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*