Benjamin Folks

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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***.

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)

Technical Lead - Python Engineer
- Manage software architecture, implementation/testing of code, and deployments to production
- Compile/analyze all user-response data and allow businesses to view their corresponding results
- 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:

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

Frameworks & Technologies:

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

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