BENJAMIN FOLKS

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AEROSPACE-SOFTWARE ENGINEER

Multi-faceted engineer with experience working on project teams in numerous fast-paced environments. Aims to combine Aerospace Engineering background, software engineering experience, and real-world aviation experience gained as an *FAA Certified Instrument-Rated Pilot*.

TECHNICAL SKILLS

Design Tools (CAD): SolidWorks 3D CAD, ESPRIT CAD/CAM
Programming Languages: Python, Django/DRF, VB.NET, VBA, HTML/CSS, JavaScript, Ember.js

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WORK EXPERIENCE

RedShelf • Chicago, IL • January 2018 – Present
Web development company providing digital content for educational institutions

Software Engineer
- Work within an Agile software development team collaborating with product managers and UX/UI designers, using SCRUM methodology
- Construct unit, integration, and acceptance (Selenium) tests in Python in order to deliver testable and maintainable code
- Design and maintain SSO user authentication service based on SHA256 hashing algorithm in Python
- Optimize Python tasks to be run daily that integrate the internal database with external API's
- Create email service integrating internal database models with live SendGrid web updates
- Build back-end REST API to handle all requests from an internal, front-end Ember.js application
- Design API endpoints allowing external users access to corresponding read only or read/write eCommerce operations, based on varying levels of Authentication

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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)

Lead Python Engineer
- Compile/analyze all user-response data in order to allow businesses to view their corresponding results via graphical representations on a web-based UI
- Create Python search algorithms to optimize matches between businesses and target user audiences
- Integrate with PayPal API to support live user payouts and details inquiries

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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 and automotive turn-key parts
- Build technical designs and CAD assemblies of dynamic machine models using SolidWorks 3D CAD
- Produce time studies and functional programs for CNC mills, lathes, and multitasking machine tools
- Plan and create VB.NET/VBA applications within the ESPRIT API to increase automation of tool selection and machining processes in programming fully functional milling/turning programs
- Travel onsite to aerospace and US government clients to oversee technical projects, including NASA Glenn, Woodward Inc, Northstar Aerospace, Tinker AFB

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