

Benjamin Folks

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Aerospace-Software Engineer

Aerospace Engineer and Instrument-Rated Pilot with over 235 flight hours and eight years of manufacturing, design, and software experience in the fields of aeronautics and astronautics

Work Experience

Astra • Alameda, CA • September 2019 – Present

Aerospace manufacturer and launch service provider developing high performance orbital vehicles

Senior Software Engineer

- Develop rocket factory system based on a consumer/producer multi-topic Kafka architecture for managing the assembly procedures of each rocket, to be utilized by the USAF, DARPA, and NASA
 - Collaborate with systems/product teams on Mission Control software for orbital launch vehicles
 - Create unit, integration, and acceptance tests using pytest/Selenium
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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 Django code, production deployments
 - Allow businesses to view a user-response dashboard implemented utilizing JavaScript/Chart.js
 - Create Python algorithms to optimize searches between businesses and target audiences
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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
 - Set up new back-end architectures to centralize business logic and maintain clear domain layers
 - Build Django/DRF API to serve authenticated external clients and an internal Ember.js application
 - Manage scheduled and on-demand asynchronous Python tasks using Celery
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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 on CNC mills, lathes, and multitasking machines
 - Build CAD designs and assemblies of dynamic machine models using SolidWorks 3D CAD
 - Develop VB.NET/VBA applications within the ESPRIT API to automate machining processes
 - Traveled onsite to 35+ aerospace/US gov't clients to oversee technical projects and trainings
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Technical Skills

Programming Languages, Frameworks, & Technologies:

Python, Django/DRF, JavaScript, TypeScript, Node.js, Angular, Ember.js, HTML/CSS, VB.NET/VBA, C++, PostgreSQL, MongoDB, Linux/Unix, Docker, Kubernetes, Celery, AWS (EC2, S3, Lambda, RDS, DynamoDB)

Design Tools (CAD):

SolidWorks 3D CAD, ESPRIT CAD/CAM

Education

BS Aerospace Engineering • University of Illinois at Urbana-Champaign

FAA Certified Private Pilot - Instrument Rating