

# Derek Covey

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I am a technical project manager, self-taught Python developer, and senior airplane certification engineer focused on growing my career in program and project management.

## Technical Skills

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**General:** Microsoft Office (PowerPoint, Word, Excel, Outlook, OneNote), SharePoint, Project

**Languages & Libraries:** Python, JavaScript, HTML5, CSS, Ruby, MATLAB, pandas, jQuery

**Web Frameworks:** Django, Ruby on Rails

**Deployment & Databases:** Heroku, PostgreSQL

## Experience

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### Prusik Development LLC

Seattle, WA

#### Founder

Jan 2017 – Mar 2018

Started a company to develop products focused on the intersection between outdoor education and technology. Significant accomplishments:

**Get Yr Beta** - An open source web application to facilitate, automate, and coordinate planning logistics for outdoor adventures. <https://www.getyrbeta.com>

- Developed using Agile/Scrum product development methodology
- Selected for sprints during PyCascades 2018; I managed a group working session and enabled two new contributors to fork the repo, install locally, make enhancements, and submit pull requests
- Built in Python using Django framework with PostgreSQL database and deployed on Heroku
- Implemented JavaScript AJAX requests to enable users to create gear lists and participant rosters via a snappy and intuitive interface without page reloads
- Incorporated third party authentication through Facebook API and mapping through Google Maps API

**Blue Heron** - A prototype web application to show proof of concept for a boat to restaurant fish market.

<https://blueheronmarket.herokuapp.com>

- Created prototype of online marketplace to support marketing and funding campaigns
- Built in Ruby using Ruby on Rails framework with PostgreSQL database and deployed on Heroku
- Implemented secure user authentication process

### Boeing

Mukilteo, WA

#### Senior Airplane Certification Engineer

Jan 2014 – Jan 2017

Served as project manager, leading cross-functional team toward Extended Operations certification of 737MAX line of airplanes. Significant accomplishments:

- Executive engagement: Created communications template and provided executive leadership with weekly status updates. Regularly presented as subject matter expert during leadership meetings to provide project insight and strategy options.
- Planning: Authored and negotiated four regulatory documents to establish 737-8 certification basis and method of compliance. Reduced project scope and resource requirements by performing engineering analysis and negotiating continuation of previous compliance for unchanged systems.
- Execution: Led integration meetings with propulsion, systems engineering, and flight test operations to train engineers, identify key milestones, and prioritize workflow.
- Risk management: Identified and logged risks using impact-probability method. Effectively maintained project schedule and cost after realizing risk due to external factors. Accomplished by analyzing the critical path, modeling maximum float time, and presenting recommendations to program vice president.
- Quality control: Managed quality for 29 systems through inspection of system safety assessments and failure mode effects analysis documents to ensure regulatory compliance and deliverable acceptance.

- Stakeholder management: Led technical discussions with outside agencies including the Federal Aviation Administration and European Aviation Safety Agency to establish the project scope and negotiate Boeing's execution plan. Cultivated relationships and maintained communications in a cross-functional team including flight test, maintenance engineering, systems engineering, and regulatory administration.
- Flight testing: Co-authored the Certification Flight Test Plan for the 737-8 Extended Operations flight test program. Guided development of maintenance manuals to support flight test demonstration. Trained flight test personnel in appropriate use of maintenance manuals during flight test operations.

### Round the World Travel

Nov 2012 – Dec 2013

- Cultivated awareness of global culture, communication, and perseverance in unfamiliar environments
- Traveled to 23 countries with extensive time in India, Nepal, Peru, and Ecuador

### Boeing

Everett, WA

### Aerodynamics Engineer

May 2008 – Nov 2012

Used Matlab and Fortran based tools to model airplane performance for use in product development, in-production fleet support, and certification. Significant accomplishments:

- Invented braking performance calculation methodology to meet performance requirement for critical airline customer. Minimized cost by using engineering analysis to leverage existing airplane capability with no hardware change.
- Generated takeoff, enroute, and landing performance data to support airline operations, product development, and airplane certification
- Served as subject matter expert onboard during 737 ecoDemonstrator flight testing
- Debugged and validated databases to support critical path for Flight Management System development
- Automated production of brake temperature cooling charts using Matlab script

### Certifications

#### Project Management Professional (PMP)

Feb 2018 – Feb 2021

Certified through Project Management Institute (PMI)

#### University of Washington – Continuing Education Certificate in Ruby programming

Seattle, WA  
Sep 2015

### Education

#### University of Michigan - College of Engineering Master of Science in Aerospace Engineering

Ann Arbor, MI  
Dec 2007

- Specialized in fluid dynamics

#### Bachelor of Science in Aerospace Engineering

Dec 2006

- Graduated Magna Cum Laude

### Volunteer

#### Snohomish County Volunteer Search and Rescue Boeing Alpine Club – Mountaineering Instructor

Jan 2018 - Present  
Feb 2017 - Present