# Nikolay Kolesov

# Aerospace Engineer

I recently received my Bachelor's degree and plan to pursue a Master's in the near future. I am seeking an entry level position or internship in the engineering industry.

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**SKILLS** 

Python

MATLAB

Certified SolidWorks Associate

MS Office

NASA CFS

Aircraft Stability Analysis

TensorFlow

Time Management

## **LANGUAGES**

## English

Native or Bilingual Proficiency

Russian

Native or Bilingual Proficiency

**EDUCATION** 

**B.S.E.** Aerospace Engineering

**Arizona State University** 

08/2016 - 12/2019

GPA: 3.75/4.00

## WORK EXPERIENCE

# **Rover Engineering Intern**

NASA Ames Research Center

02/2020 - 05/2020

Santa Clara, CA

Achievements/Tasks

- Configured hardware on a rover to be used as a software testbed, detailed the design through wiring diagrams and FreeCAD models
- Learned to design neural networks in Python to be used for image recognition and rover navigation
- Worked with NASA CFS flight management software, adding modules and adapting the code to run on the rover

#### Intern

# Air Force Research Laboratory

05/2019 - 07/2019

Wright Patterson AFB, Dayton, OH

Achievements/Tasks

- Modified and used in-house aircraft sizing software (Python, Excel VBA) to develop concepts for future tanker aircraft
- Ran mission simulations to predict performance of each aircraft in real mission scenarios
- Performed cost analysis on each concept based on previous Air Force projects
- Compiled all collected data into a technical report and presentation to the branch

## **ORGANIZATIONS**

ASU Design Build Fly Team (08/2016 – 12/2019)

President(08/2018 - 12/2019), Outreach Coordinator(08/2017-05/2018)

# **INTERESTS**

Triathlon

Cycling

Pilot Training

Classic Rock

## **PERSONAL PROJECTS**

RC Airplane Wing Optimization (08/2018 – 12/2019)

- □ Wrote code in Excel VBA integrated with VORLAX to evaluate cambered flat panel wing designs
- Analyzed lift and pressure distribution, employed Stratford criteria to predict stall
- Used ModelCenter to run optimization algorithms and create optimally performing wing designs
- Results of this project will be published in the AIAA Aviation Conference

## 3D Printer Construction (08/2017)

- Assembled and tuned an Anet A8 3D printer
- □ I regularly used this printer for university projects like the Design Build Fly competition