# Jun (Kevin) Choi

253.797.3074 • 27343 14th Ct S, Des Moines, WA 98198 • choijun@usc.edu

## EXPERIENCE

**Design Engineer** Oct. 2019 – Jul. 2020
AeroTEC | Seattle, WA

- Extensive use of NX 12 to design and test the aircraft system and validating with structural test report
- Conceptualized instrumentation rack and LOPA for the Rolls Royce flying test bed to support engineering workstation
- Supported designing and testing the customers' wind tunnel models and got familiar with Kirsten Wind Tunnel
- Designed a cooling ducting system assembly (composite parts) for the MagniX (electric plane) flight test program

**Design Engineer** Dec. 2017 – Oct. 2019
Hexcel | Kent, WA

- Extensive use of CATIA V5 to design aerospace tools and complex parts per customers' (SpaceX/Boeing) specification
- Extensive use of CATIA Composite Workbench to flatten 3D geometry into optimized 2D ply shape
- Created engineering drawings with appropriate GD&T techniques to support needs of technicians and customers
- Specialized in automated kit cutting table programming (Gerber & Eastman) and laser projection system (LPT & AGS)
- Analyzed part measurement and inspection data defects to determine root cause and corrective action
- Implemented 5S lean manufacturing method to improve work environment, process, and safety

**Undergraduate Research Assistant** Apr. 2015 – Jun. 2017
Aircraft Icing and Aerodynamics Research Group | Seattle, WA

- Tested various 3D printing techniques to produce various removable iced leading edges
- Installed pressure tubing (connecting pressure taps to pressure transducer) to measure static pressure
- Optimized the geometry of ice shape in NX 10 to be manufactured for wind tunnel testing
- Utilized Excel to organize test data, transferring to Tecplot 360 EX to visualize test results

**Configuration and Integration Team Lead** Jan. 2017 – Sep. 2017
Supercruise Aircraft Design Capstone Project | Seattle, WA

- Coordinated with other teams to verify the nacelle and the airframe modifications to mitigate integration errors
- Modified the geometry (inlet & nozzle) of previous year's propulsion system to increase the thrust by 4 lb
- Extensive use of NX to design the full configuration of an UAV model, a wind tunnel model, and a full-scale aircraft (700 hrs)
- Led the manufacturing process such as a composite layup, a canopy fabrication, and a layup mold modification
- Optimized an internal structure of a control surface to minimize its weight and performed a structural test

**CAD and Data Acquisition Lead** Mar. 2016 – Mar. 2017
Liquid Bipropellant Motor Project | Seattle, WA

- Tested a liquid bipropellant motor (Ethanol/Liquid Nitrous Oxide) that produces 5 lb of thrust
- Wrote a MATLAB code that obtain real-time pressure and thrust data using Arduino
- Repaired the launch control box to prevent electrical malfunction and ignited the motor successfully
- Designed an impinging jet injector using Solidworks to upgrade the motor performance (20 lb of thrust)

## EDUCATION

**University of Washington, Seattle** | B.S. in Aerospace Engineering Graduated: Jun. 2017
**University of Southern California, Los Angeles** | M.S. in Astronautical Engineering Expected: January 2023

## SKILLS

Catia V5 | CATIA Composite Workbench | Solidworks | NX | JETCAM | CrossTrack | Flow Waterjet | SmarTeam (PLM)
MATLAB | MS Office | LaTeX | Composite Layup | 3D printing (layup mold & wind tunnel parts)