

## SKILLS PROFILE

- Object oriented programming (OOP) experience in Java and C++
- Algorithms completed in Java, data structures completed in C++
- Basic experience with Python, ARM Assembly, Raspberry Pi, Arduino
- Relational database experience using MySQL and AWS
- NoSQL database experience using MongoDB and Robo3T
- Database application development in Java
- Version control and concurrent development using GitHub
- Website built with HTML/CSS and AWS Amplify continuous deployment
- Mechanical design, assembly, and finite element analysis (FEA) in CATIA
- Drafting and geometric dimensioning and tolerancing (GD&T) for drawing creation
- Performed Design of Experiments for statistical analysis of production processes
- Applied design for manufacture and assembly for production efficiency (DFM, DFA, DFx)
- Basic experience with simple electronics and PLC ladder logic
- Experienced in mechanical testing procedures under controlled environmental conditions
- Utilized FDM, SLA, and SLS 3D printing for rapid prototyping
- Proven skills in 5-axis CNC programming, mill-turn, lathe, and high speed machining
- Used composite processing methods for the fabrication of carbon fiber structures

## WEBSITE

[kylew.dev](http://kylew.dev)

## LinkedIn

[bit.ly/KWLIPRF](https://bit.ly/KWLIPRF)

## LANGUAGES

Java

C++

Python

## SOFTWARE

VSCode

IntelliJ

MySQL

Oracle VM

Robo3T

MS Project

CATIA V5

Solidworks

Esprit CAM

Edgecam

## PROFESSIONAL EXPERIENCE

### AVTECHTYEE | Manufacturing Engineer 2

June 2017 – April 2020

- Designed, owned, and manufactured production tooling using CATIA and Edgecam
- Multi-axis mill, turn, mill-turn, and horizontal CNC programming and automation in Edgecam and Esprit
- Manufacturing engineering and process development for new product introduction
- Maintained ongoing manufacturing process planning, documentation, and work instructions
- Continuous improvement of production plans, processes, tooling, equipment, and layout
- Shop floor support with CNC machining, assembly, inspection, drawing interpretation, etc.
- Corrective actions and root cause analysis applied towards systemic nonconformity issues

### HEXCEL CORPORATION | Manufacturing Engineering Intern

June 2015 – June 2016

- Designed production tooling in CATIA using solid, surface, and composite modeling techniques
- Created 5-axis CNC simulation models using CATIA and Vericut
- 5-axis machining and forming of honeycomb structures of various compositions (aramid, fiberglass, aluminum)

### WWU FORMULA SAE | Suspension Lead Engineer and Lead CNC Machinist

September 2012 – June 2016

- Designed, analyzed, and manufactured critical load-bearing suspension components successfully used in 3 generations of competition vehicles (Viking 58, Viking 59, Viking61 at [WWU Racing](#))
- Full design cycle experience from concept to design, build, test, and iterative design

## EDUCATION

### WESTERN WASHINGTON UNIVERSITY | B.S. in Manufacturing Engineering

WWU Outstanding Graduate – June 2016

### BELLEVUE COLLEGE | B.S. in Computer Science – Currently Enrolled

Graduation Date – June 2022