



BEEMNET (BEE) WORKENEH

DESIGN ENGINEER

SKILLS

Programming

- HTML, JavaScript, CCS, Python, jQuery, Plotly, Bootstrap, pywebview, relational databases using sqlite, HTTP, Node.js, Express, JSON, APIs, non-relational databases using Mongo DB and Mongoose
- Object-oriented design
- Repository and package management with conda, pip, npm, and git
- C/C++ for developing in Arduino.
- Some Java, SQL, Microsoft Access, and VBA

Communication Skills

- Strong communication skills: written and verbal
- Microsoft Office, Excel, PowerPoint, Outlook, Publisher
- Working with cross functional teams
- Plan, execute and deliver projects
- Clearly communicate data insights

OTHER SKILLS

- Able to work comfortably in ambiguous early stage concept development
- User experience research
- Detail oriented
- Excellent problem solver
- Engineering design and analysis using Python, MATLAB, ANSYS, SolidWorks, Inventor, CATIA
- 3D Printing, soldering, rapid prototyping
- Component and assembly drawings for prototyping
- Design for manufacturing
- GD& T and Aircraft fabrication methods

WORK EXPERIENCE

DESIGN ENGINEER L2

Boeing | July 2018 - Present

- Developing a web application (Front End: HTML, CSS, JS, Bootstrap, Plotly; Back End: Python, JSON, Sqlite, pywebview) that automates manual and repetitive tasks related to a frequent supplier design review and data archiving. The tool results in over 50% reduction of involved process steps. The tool also provides responsive, intuitive, and straightforward user interface.
- Coordinated with mechanics and identified root cause of seat installation issues (engineering drawings that are not mechanic-friendly). Wrote a set of python scripts that generate mechanic-friendly engineering drawings from raw data to improve the process of installations. New process is in place for all upcoming installations.
- Responsible for design review, installation and certification of supplier-designed passenger seats
- Frequently and extensively coordinate with suppliers, internal design teams, the FAA and production system
- Review and approve supplier technical data and hardware for compliance with FAA, Boeing internal, airline, and foreign commercial aviation agency requirements

LOAD-A-DOSE PROJECT HARDWARE-FIRMWARE DESIGNER

University Of Washington | Spring 2018

- Designed and built an electro-mechanical medical device that accurately measures and draws insulin for diabetic people with low visual acuity
- Implemented audio visual feedback to eliminate dosing errors for the target user group based on research and user experience interviews

BOEING 777X INTERIORS LIGHTING DESIGN INTERN

Boeing | Summer 2017

- Designed and prototyped customizable aircraft interior lighting features
- Evaluated additive manufacturing of lighting features for part cost, durability and compliance to FAA requirements.
- Developed Light Database Generator scenes for testing interior lighting in a mock up environment
- Created a aircraft part size selection tool and user interface that eliminates guess and check in the selection process.

BOEING AIRCRAFT SEATING DESIGN ENGINEERING INTERN

Boeing Summer 2016

- Reviewed and approved supplier engineering drawings
- Built digital aircraft interior layouts to assist with pre-certification efforts
- Assisted in finding bugs and creating a tool tip for implementation of a new web application
- Developed several process improvement plans
- Assisted with key interior certification tests

GET IN CONTACT

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[Online portfolio of work \(link\)](#)
[LinkedIn \(link\)](#)

EDUCATION HISTORY

UNIVERSITY OF WASHINGTON PCE 2020

Fundamentals of Programming : Python

UDACITY 2020

Data Structures and Algorithms

UNIVERSITY OF WASHINGTON 2018

Bachelor of Science in Mechanical Engineering,

GPA 3.7

UDEMY 2020

Front End Development- completed

Back End Development- in progress