

ASHANK BEHARA

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EDUCATION

University of Illinois (UIUC)

Aug. 2018 - Dec. 2021

3.40/4.00

B.S in Mechanical Engineering

Minor in Computer Science

SKILLS

Modeling and Analysis

CREO, Solidworks, Autodesk Inventor

APriori, Moldflow, Cura, Vicon

Languages, Frameworks, and Tools

Java, Python, Matlab, Octave

Javascript, Flask, React, HTML, CSS

SQL, Shell, Android, Git, MongoDB,

Pandas, SciKitLearn

COURSEWORK

Mechanical Engineering

Thermodynamics

Statics

Design for Manufacturability

Computer Aided Design

Multivariable Calculus

Differential Equations

Linear Algebra (In Progress)

Fluid Dynamics (In Progress)

Dynamics (In Progress)

Computer Science

Intro Programming (Python/MatLab)

Intro Programming (Java)

Discrete Structures

Data Structures (In Progress)

CERTIFICATIONS

Databases and SQL for Data Science

Python for Machine Learning (In Progress)

ORGANIZATIONS

Neurotech @ UIUC [VIEW]

Vice President

- Writing machine learning scripts and building hardware with data from BCI headsets, managing projects and inter-team integration

i-Made

Engineer

- Prototyping and designing medical technology solutions from Carle physicians and UIUC faculty

ASME

General Member

ACM

General Member

WORK EXPERIENCE

Hack4Impact

Software Developer

September 2019 - Present

Urbana, IL

- Developing and shipping software to non-profit organizations
- Full stack development using Flask, React, SQL, MongoDB

DPQL Laboratory

Undergraduate Research Assistant

June 2019 - Present

Urbana, IL

- Assistant in Disability, Participation, and Quality of Life Laboratory on the FindWheels study
- Data Analysis and signal processing from Vicon and a variety of sensors using Matlab and Octave

RAAD Systems

Mechanical Engineering and Robotics Intern

June 2019 - August 2019

San Jose, CA

- Redesigned cheaper model of UR10 6-axis robot using Autodesk Inventor
- Performed inertial, torque, and mechanics analysis in Matlab for appropriate harmonic drive motor selection and performance
- Final design is being pushed to production by the company

UPenn GraspLab

Summer Research Intern

June 2017 - August 2017

Philadelphia, PA

- Wrote Python clustering scripts, assembled Minitaur robot, wrote Vicon system user guide, and programmed safe flight paths in C++ for drones

PROJECTS

Carpool4UIUC [VIEW]

September 2019 - December 2019

- Developed functional ride-sharing web application for UIUC students
- Used tech stack of React, Flask, and MongoDB
- Focused on frontend development and implementing Google OAuth and aided writing RESTful API and NoSQL database design

DiaProb [VIEW]

January 2020

- Developed Diabetes Probability Predictor using machine learning
- Generated a Logistic Regression model using SciKitLearn/Pandas and a dataset from Kaggle
- Built functional interface that is currently being hosted with HTML/CSS

Genusim [VIEW]

November 2019

- First place in UIUC Autodesk Designathon
- Developed knee injury simulator and web app controller to simulate ligament injuries using Fusion360 and HTML/CSS.

Tremor-Adapting Cane [VIEW] August 2018 - December 2018

- Designed a self-stabilizing cane using CREO Parametric for people with severe tremors
- Created CAD model, engineering drawings, BOM, PDS, and Pugh Matrix.

Redesign for Recyclability [VIEW]

January 2019 - May 2019

ME270

- Redesigned mechanical pencil using CREO for improved assembly efficiency and recyclability
- Performed 2k factorial Design of Experiments and DFMA analysis
- Final project for ME270 (Design for Manufacturability) where I learned rapid prototyping and machining (CNC Mill, Lathe)