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 [VIEW]

Hack4Impact   September 2019 - Present
Software Developer   *Urbana, IL*
· Developing and shipping software to non-profit organizations
· Full stack development using Flask, React, SQL, MongoDB

DPQL Laboratory   June 2019 - Present
Undergraduate Research Assistant   *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   June 2019 - August 2019
Mechanical Engineering and Robotics Intern   *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   June 2017 - August 2017
Summer Research Intern   *Philadelphia, PA*
· Wrote Python clustering scripts, assembled Minitaur robot, wrote Vicon system user guide, and programmed safe flight paths in C++ for drones

PROJECTS [VIEW]

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   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   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   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)