# Ashank Behara

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## **FDUCATION**

#### UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN | Junior Standing: Exp. Graduation May 2022

Bachelor of Science in Mechanical Engineering and Minor in Computer Science and (int.) Mathematics | Urbana, IL GPA: 3.50 / 4.0

Coursework

Design for Manufacturability • Discrete Structures • Introductory CAD • Statics • Thermodynamics • Differential Equations • Introductory Computing (Matlab/Python) • Introductory Programming (Java)

Organizations

Hack4Impact • NeuroTech @ UIUC • American Society of Mechanical Engineers • Club Tennis • Club Ultimate Frisbee

## **EXPERIENCE**

#### NEUROTECH @ UIUC | SEPTEMBER 2019 - PRESENT

Vice President | Urbana-Champaign, IL

- Conducting analysis of EEG data extrapolated from OpenBCI headsets using EEGLabs and Matlab
- Writing scrips in Python to classify data using standard machine learning algorithms; mainly K-means and KNN clustering

#### HACK4IMPACT | SEPTEMBER 2019 - PRESENT

Software Developer | Urbana-Champaign, IL

- Designing, developing, and deploying web and mobile applications and robust software for non-profit organizations
- Gaining practical programming skills in the front and backend using Flask, React, MongoDB, PostgreSQL, and Shell amongst a multitude of other languages and packages

### DPQL LAB @ UNIVERSITY OF ILLINOIS | JUNE 2019 - PRESENT

Undergraduate Research Assistant | Urbana-Champaign, IL

- Performing data analysis in Matlab and Octave using data gathered from Vicon 3D motion capture system for FIND-Wheels study in Disability Participation and Quality of Life Research Laboratory
- Developing signal processing script for data synchronization using Matlab with gathered data from force plates, accelerometers, and Vicon

## RAAD SYSTEMS | JUNE 2019 - AUGUST 2019

Mechanical Engineering and Robotics Intern | San Jose, CA

- Designed 6-axis robot using Autodesk Inventor with universal mounting interface for mobile robots
- Performed inertial,torque, and mechanical analysis for appropriate harmonic drive motor selection in Matlab

# **PROJECTS**

# DESIGN FOR RECYCLABILITY | APRIL 2019- MAY 2019

Project for Design for Manufacturability

- Redesigned mechanical pencil for assembly efficiency and improved reprocessability
- Created full CAD model and Bill of Materials and performed a complete Design of Experiment and Assembly

#### THERAPEUTIC TREMOR-ADAPTING CANE | August 2018 - December 2018

Personal Group Project

- Designed and developed a self-stabilizing cane using CREO Parametric for people with severe tremors (Parkinson's)
- Created assembly model and individual part engineering-drawings, a Bill of Materials with appropriate manufacturing processes and materials, a variety of product design specifications, and tolerance analysis

## SKILLS

#### LANGUAGES AND FRAMEWORKS

Java • Python • Flask • MatLab • Octave • React • Android • Latex • HTML • Unix • CSS • JavaScript

#### **MODELING AND ANALYSIS**

Creo Parametric • Autodesk Inventor • Fusion 360 • SolidWorks • APriori • Cura Lulzbot • Moldflow