

ASHANK BEHARA

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EXPERIENCE

Caesar Research Group @ UIUC | IoT Virtualization Researcher

📅 March 2020 – Present

📍 Urbana, IL

- Working on frontend infra team for large scale cloud based IoT simulations
- Currently developing React components using Typescript and linking to backend and writing unit tests using Immutable.js for Circuit Emulator
- Virtual Circuit Emulator tool is deployed to multiple UIUC courses

Hack4Impact | Software Developer

📅 September 2019 – Present

📍 Urbana, IL

- Developing and shipping software to nonprofit organizations
- Full stack development using Flask, Node, React, SQL, MongoDB, etc
- Built ride sharing web application for UIUC students and shipped interactive project sharing platform

DPQL Lab @ UIUC | Undergraduate Research Assistant

📅 June 2019 – December 2019

📍 Urbana, IL

- FindWheels study: tracking wheelchair falls to alert emergency services
- Data Analysis and Signal Processing using MatLab and Python

RAAD Systems | Mechanical Design Engineering Intern

📅 June 2019 – August 2019

📍 San Jose, CA

- Designed 6-axis robot using Inventor given performance parameters
- Performed inertial and torque analysis for motor selection and to test functionality and implemented DH matrix for mechanics analysis

Kod*Lab @ UPenn | Summer Robotics Research Intern

📅 June 2017 – August 2017

📍 Philadelphia, PA

- Performed data analysis of turbulence for fleets of drones and assembled Minitaur Robot as part of joint partnership with Ghost Robotics
- Wrote Vicon system user guide for entire lab and debugging documentation

SELECTED PROJECTS

Kids Save Ocean - FateMaker | Full Stack Web Application

📅 January 2020 - Present

📍 Team

- Developing web application to empower environmental cleanup for youths
- Built project REST API, API wrapper, and schema and aided user auth backend
- Building multiple functional React components for different features
- Core functionality deployed with optimization development in progress
- Tech Stack: NextJS, ExpressJS, MongoDB Atlas, DraftJS, FuseJS, Redux

DiaProb | Logistic Regression Machine Learning

📅 January 2020

📍 Individual

- Developed Diabetes Probability Predictor using a logistic regression model with training dataset from Kaggle
- Tech Stack: Python, SciKitLearn, Pandas, HTML, JavaScript, CSS

Design for Recyclability | DoE and DFA analysis of Mechanical Redesign

📅 April 2019 – May 2019

📍 Individual

- Redesigned mechanical pencil using CREO for improved assembly efficiency and recyclability
- Performed 2k factorial Design of Experiments and DFMA analysis
- Tech Stack: CREO Parametric, APriori, MatLab

EDUCATION

University of Illinois at Urbana-Champaign

B.S in Mechanical Engineering

Minor in Computer Science

📅 August 2018

Data Structures and Algorithms, Fluid Dynamics, Thermodynamics, Discrete Structures, Linear Algebra, Statics, Dynamics, Design for Manufacturability

SKILLS

Development

C++ JAVA Python Javascript MatLab
NodeJS React Typescript MongoDB Git
Flask SQL HTML CSS SciKitLearn Pandas
Shell

Modeling and Analysis

CREO SolidWorks Inventor Fusion360
Apriori Cura Vicon

AWARDS

GenuSim | 1st @ Autodesk Designathon

📅 November 2019

- 3D modeled knee injury simulator for ligament injuries for medical students at Carle Hospital

LEADERSHIP

NeuroTech @ UIUC | Co-Founder and VP

📅 September 2019 – Present

- Lead 40 person organization of PHD, Masters, and Undergraduate students
- Consulting for Ericsson and machine learning projects using EEG data from BCI headset

i-Made | Engineer

📅 November 2019 – Present

- Lead development of online tool for analysis of Reddit posts portraying suicidal feelings using NLP to process text bodies

CERTIFICATIONS

Robotics: Perception | UPenn

📅 April 2020

In progress

Robotics: Comp. Motion Planning | UPenn

📅 April 2020

Implemented A* and Dijkstra's graph search algorithms in Matlab and learned fundamental robot kinematics

Database Design and SQL | IBM

📅 January 2020

Basic database design and querying IBM DB2 cloud database using SQL nested in Python