

VARNIT JAIN

Contact

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Education

Georgia Institute of
Technology
MS in Human-Computer
Interaction 2021

Indraprastha Institute of
Information Technology
BTech in Computer Science
2019

Skills

DEVELOPMENT

Python, C++, C#, Java
HTML, CSS, Javascript, Flask
SQL, MongoDB
Unity3D, A-Frame, Vuforia,
Spoke
Android Studio
Shell Scripting
Arduino, Raspberry Pi, Teensy,
FPGA
MATLAB
OpenCV, TensorFlow

UX RESEARCH

Contextual Inquiry
Affinity Mapping
Interviews
Surveys
Task Analysis
Personas
Journey Mapping
Empathy Mapping
Usability Testing

UX DESIGN

Storyboard
Wireframes
User Journey
Hi-fi Prototyping
Data Visualization

Experience

Ubicomp Group

Graduate Research Assistant

Aug. 2019 to Current

- Performing summative research with clinical psychologists to understand the limitations of Prolonged Exposure therapy for PTSD patients.
- Developing a HIPAA compliant application using a smart phone's sensors to monitor engagement/ stress during homework sessions and using the data to generate effective treatment practices.

LameBot

Data Science Project

Dec. 2019 to Current

- Developing a text-based chatbot that tries to imitate and learn my conversational patterns.
- Training a Sequence to Sequence Model based on my conversations across various social media platforms (data pulled using various APIs).

Precog

Backend Developer

Jan. 2018 to May 2019

- Led the research, design, and development in a diverse team of six to transform a concept into a product and launch it on the Android Play Store (Mime - 4.6 rating, 1000+ organic users).
- Used a variety of user research strategies to support the platform's information architecture and guide interface design decisions.
- Created database structure in Firebase and TypeScript and supported android development.

AutoVend

Interaction Developer

Aug. 2017 to Jan. 2018

- Built an automatic vending machine that improves the customer experience by automatically detecting and billing the items picked automatically.
- Developed an object detection algorithm using 'Tiny-TOLO' for items picked and developed the information flow to the cloud database (Firebase) in Python.
- Deployed in corporate offices where about 200 food items are sold daily.

BrailleIO

Visual Accessibility Research

Jan. 2016 to May 2016

- Visited a school for the visually challenged for interviews and contextual inquiry with 6 kids and 2 teachers, and identified issues related to accessibility and cost.
- Built a prototype of a Braille printer by creating a 3-axis CNC using old CD/DVD drives (total cost < \$5); selected as the best project out of 48 and selected for demonstration in the Maker Faire '16.

Publications

ACM CHI 2019 - VirtualBricks

VR Experience Developer

May 2018 to Sept. 2018

- Designed and Developed Virtual Reality Experiences and custom Unity Packages for a VR-Developer-Toolkit that enables building custom VR controllers with Lego to improving haptics.
- Set up a serial link between TEENSY 3.2 and Unity for lag-free data transfer from various sensors.

ACM UIST 2018 - Jamoora

Animatronics

July 2018 to Oct. 2018

- Combined realtime speech-recognition (Google API) and music-emotion detection (OneHotEncoder trained on classical music MIDI values) with animatronics to build a robot that augments the storytelling experience by enacting any given narrative.
- Used Makeblock's Ultimate 2.0 kit for the chassis and a Raspberry Pi for parallel computing.

Awards

Dean's Outstanding Innovation Award	2019
Dean's Award for Academic Excellence Award	2018