Mahika PHUTANE

(647) 739-1944 • mahika.phutane@mail.utoronto.ca • github.com/mahikap

Courses

Algorithm Design

Data Structures

Software Design

Computer Vision

HCI

Design Thinking

Inclusive Design

Software Systems

Artificial Intelligence

Tools

Python

Java

Javascript (VueJS)

C/C++

MatLab

Git

SQL

Adobe Suite

Tensorflow

Web + iOS

OpenCV

Autodesk 3D Max

Unity

Interests

Writing: My Blog

Mathematics

Travelling

Solving Problems

Sanskrit

Education

University of Toronto - Cumulative GPA : 3.8/4.0   SEPT 2015 - Present
   H.B.Sc. Computer Science + Communication, Culture, Info, Tech
   Dean's Honour List Recipient

Sheridan College of Arts   SEPT 2016 - Present
   Certificate in Digital Communications

Nanyang Technological University, Singapore   JUL 2017 - AUG 2017
   Creative Design, Media, and Communcations Summer Track

Research Experience

Research Assistant | *University of Toronto - Faculty of Information*   MAY 2017 - Present
- Following a knowledge production process to learn the "nature of information"
- Hosted an exhibit with AR components to display research results
- Writing a paper on the methodology of arts-informed research

Junior UX Researcher | *Technologies for Aging Gracefully (TAG) Lab*   SEPT 2017 - Present
- Developed mobile-based applications to provide practical support for seniors
- Conducted user evaluations and contributed to the revising of UX Design

Participant | *CMU - Undergraduate Research Conference*   OCT 2017
- Contributed to ongoing research projects with insight in human-centered software design
- Experimented with wearable computing systems and NLP technologies

Research Opportunity Program | *University of Toronto*   MAY 2016 - AUG 2016
- Conducted literature reviews on educational video game design
- Developed a video game using Unity and contributed user findings to a paper

Work Experience

AR Software Developer Intern | *Modiface - L'Oreal Group*   MAY 2018 - Present
- Implemented a content management system (CMS) using VueJS, PHP, and MySQL
- Expanded Modiface's core rendering libraries using OpenCV and C++
- Researched optimal solutions to construct tutorial animations on AR

Teaching Assistant | *University of Toronto Mississauga*   SEPT 2016 - Present
- Subjects: CSC108 (Introduction to Computer Programming)
               CSC148 (Introduction to Computer Science)
               CSC236 (Introduction to Theory of Computation)
               CSC263 (Data Structures and Analysis) *[Current]*
- Graded assignments, tests, exams through collaboration with other staff
- Lead tutorials and held office hours while encouraging students to grow beyond the syllabus

Support Person | *Prof. Daniel Zingaro*   SEPT 2017 - Present
- Aided with accessibility support for visual impairment

$\mathcal{P}$rojects

EyeSpeak - A Tool to Convert ASL Alphabet to Text (Matlab)
JAN 2018 - MAY 2018

- Applied skin segmentation techniques for face and hand detection
- Trained a neural network on 2000 images to recognize signed alphabets, with a 90% accuracy rate
- Implemented a Kalman FIlter for hand tracking

EyeGarden - A Tactile Playground for the Visually Impaired
JAN 2018 - MAY 2018

- Researched inclusive design needs for visual impairment
- Applied Design Thinking methodology for ideation and expansion of this playground
- Designed an Aerial and 3D view of this playground using Adobe Illustrator

$\mathcal{A}$wards

3rd Place + Google Cloud Vision API Winnter MIT - Hacking Arts 2018 | *MIT Media Lab*
OCT 2018

- Along with 5 team members, built and demonstrated ix - a tool for artists, curators, and patrons to engage in more meaningful and social exhibitional/museum experiences
- These tools were demo-able on any AR compatible device
- Used the Google Cloud Vision API to store, identify and engage users of the application

1st Place MIT - Hacking Arts 2017 | *MIT Media Lab*
NOV 2017

- Along with 4 team members, built Choroesome - a service that uses motion capture inputs to run spatial analysis and generate immersive experiences
- These experiences can be viewed in any VR headset
- Used Unity, Blendr and Sketch to build a working prototype in 24 hours

Scholar-in-Residence | *Jackman Humanities Institute, Toronto*
MAY 2017

- Drawn from a pool of 975 applicants, selected 5 got the opportunity to live, learn and delve into focussed humanities research
- Spoke in a panel at the Humanities in the 21st Century Conference