Hritik Aggarwal

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EDUCATION

University of Washington, Seattle — *B.S. Computer Science, June 2022*

- **GPA** : 3.77/4.0 (Annual Dean's List)
- **Relevant Coursework** : Data Structures & Parallelism, Software Design & Implementation, Matrix & Linear Algebra, Full Stack Development, Applications of Computing, Technical Foundations of Data Sciences
- **Technical Skills** : JavaScript, Java, React JS, Git, HTML5, CSS3, Firebase, Linux, C++, SQL, PHP, Android, R, Lua

WORK EXPERIENCE

MealsTogether (Youth Movement Against Alzheimer's) — *Full Stack Engineer* APRIL 2020 - PRESENT

- Collaborating on a web app to create companionship over virtual meals with random FoodFriends.
- Using **React.js** for Front-end, **Firebase** for data storage and server-side scripting, **Git** for collaboration, and **Zoom API** for video conferencing.
- Enables people from across the world to find random FoodFriends in this time of isolation and loneliness.

Taskar Center for Accessible Technology, Seattle — *Research Intern* DEC 2019 - APRIL 2020

- Researched on *Adaptive Gesture Recognition and Classification* to allow people with limited hand motor abilities to control different inputs depending on the device they are using.
- Built a system using **Arduino** and **Java** to allow easy experimentation of different smart gloves based on their raw data, resolution, and degree of freedom.

FutureSoft, Noida — *Full Stack Intern* JULY 2019 - AUGUST 2019

- Built a tool for Shopify users that removed tedious insertions of product data across multiple stores.
- Used **HTML5**, **CSS3**, & **React JS** to make the dynamic user interface; fetched data from Shopify servers using **PHP cURL**; stored data in **MySQL**.
- Enabled easy management by creating a single enhanced dashboard and catalog editing abilities.

SabLab at UW, Seattle — *Research Intern* JAN 2019 - NOV 2019

- Captured a nanoscopic image of retinal cells of the human eye by using image processing and computer vision (*Perona–Malik diffusion* and *Image Restoration* techniques).
- Reconfigured an open-source Adaptive Optics specific technology software (**AOSACA**) using **C++**.
- Improved visualization of retinal cell structures and functions.

SELECTED PROJECTS

What's Around, HackIIIT Delhi AUG 2019

- Created beta Android app that empowers blind people to locate large objects like empty chairs, desks, and even mobile phones by simply scanning the room with their phone's camera.
- Built on **Android Studio**; used **Java** to monitor phone's gyro and position sensors, and tracked the position of the user anywhere inside the room; **TensorFlow Lite** to identify objects using the phone camera.

Reson8, Hack WA JAN 2019 - FEB 2019

- Engineered a device that allows people with the inability to speak a means of communication (and even control home-automation) by converting hand gestures to voice output through Amazon Echo Dot.
- Used **Lua** to configure **Myo armband** and control 4 basic gestures, **Firebase** to provide feedback storage, and **Raspberry Pi** kernel to control Amazon Echo Dot.
- Received the Best Hack overall and Best Hack Awards by Microsoft, Cisco, & Amazon (AWS).