ANAND SEKAR

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OBJECTIVE

Seek a full-time, ethical research or industry position that will provide me with opportunities to innovate; transcend oppressive structures through empathetic praxis (e.g., volunteering)

EDUCATION

UNIVERSITY OF WASHINGTON, SEATTLE, WA (B.S.: SPRING 2020; M.S.: SPRING 2021)
B.S./M.S. COMPUTER ENGINEERING, WITH DISTINCTION | GPA: 3.95

Notable courses: Systems Programming, Data Structures and Parallelism, Digital Design, Networks, Compilers (TA x2), Security, Operating Systems, Algorithms, Wireless Communication;
> DiffEq/ Linear Algebra/ Linear Analysis, Thermal Physics, Quantitative Methods in Neuroscience;
> Neuroethics, Moral Issues of Life and Death, Education Inside Prison;
500s: Systems for All, Deep Learning, AI, Wireless Robotics, Computer Ethics, Computing for Social Good

INGLEMOOR HIGH SCHOOL, SEATTLE, WA (SPRING 2016)

SKILLS & ABILITIES

Software Skills: Python (PyTorch & TensorFlow), C/ C++, Java/ Kotlin, Matlab, Git, Linux, ROS;
> Adobe Photoshop & Illustrator, CAD (Rhinoceros, Autodesk Inventor), Unity 3D for VR.
Hardware Skills: Laser Cutting, CNC Machining, 3D Printing, Woodworking, PCBs, Soldering, Circuits;
> Verilog, Microcontrollers/ FPGAs, Communication Protocols, Signals, Oscilloscopes;
> VR/ AR (Hololens, Vive, Rift, Go, Quest), Robotics.

WORK EXPERIENCE

APPLIED PHYSICS LAB: OCEAN PERCEPTION AND AUTOMATION | SOFTWARE ENGINEER
JULY 2021 – CURRENT, 40 HRS/WK

UBIQUITOUS COMPUTING (UBICOMP) LAB | GRADUATE RESEARCHER
JAN 2021 – JUNE 2021, 15 HRS/WK

Project: Android Implementation of Multi-Task Temporal Shift Attention Networks for On-Device Contactless Vitals Measurement
> Implementing an Android app that can infer blood volume pulse and respiration volume from live video.
> Working between TensorFlow/ Python and TFLite/ Java to optimize neural network preprocessing.

CISCO WEBEX TEAMS | SOFTWARE ENGINEERING INTERN
06/17/19 – 09/20/19, 06/15/20 – 09/25/20, 40 HRS/WK

Project: Webex Teams on Chromebook
> Designed and implemented a dynamic split dual-pane layout on Android Chromebooks and tablets.
> Utilized Kotlin, Unit testing frameworks: JUnit, Espresso, Koin.
> Organized app navigation and pushed changes into production code on the second internship.

RESTORATIVE TECH LAB & SENSOR SYSTEMS LAB | UNDERGRADUATE RESEARCHER
APRIL 2019 – JUNE 2020, ~9 HRS/WK DURING SCHOOL YEAR

Project: Hardware Implementation of a Wireless Backscatter Communication Protocol for Brain-Controlled Spinal Interfaces
> Decoded neural data to detect intentional movement and stimulate the spinal cord to restore movement in partial paralysis caused by spinal cord injury.
> Utilized Verilog to implement and test the implant-side communication, encoding, and decoding.

UW REALITY LAB | UNDERGRADUATE RESEARCHER
JULY 2018 – JUNE 2019, ~20 HRS/WK SUMMER, ~3 HRS/WK DURING SCHOOL YEAR

Project: Virtual Reality in Prison
> Collaborated with inmates and government to build VR apps for training, education, relaxation, and dialectical behavior therapy.

ROBOT-U | AFTER-SCHOOL TEACHER
JUNE 2015 – JUNE 2017, VARIABLE HOURS

PROJECTS
(PORTFOLIO)