Shlok Desai

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A thorough researcher, a curious college freshman, and a globally-minded tech enthusiast seeking to thoughtfully change the world through technology.

Education

University of Maryland – College Park **2023 – 2026**

- GPA: 4.00/4.00
- Courses: CMSC 132, MATH 141

Leadership Positions **2022 – 2023**

- *Founder-President*, Coding for SDG
- *Tech Director*, XdHacks
- *Director of Software*, Project Venture

Technical skills

- Programming Languages: Python, JavaScript (Vanilla, React, Node.js), Java, HTML, CSS, C++, Kotlin, Dart, Django

Research Experience **Mar-Sep 2022**

Diagnosing Major Depressive Disorder (MDD) using Activity Data from Wearable Sensors and Machine Learning (ML)

- Advisor: Brianna Marsh, a Ph.D. candidate in Computational Neuroscience at UC San Diego
- Thesis: Researched and developed a supervised, binary classification Deep Learning model (Python) to predict MDD using one's activity data; achieved 70% accuracy through k-fold validation
- Publication: Published in the Journal of Student Research (JSR)

Applying Biorobotics to Spinal-Cord Injury Patients

- Group: Prof. David Reikensmeyer at UC Irvine and his research lab (through UCI x GATI BEAM Program)
- Product: Designed a head mouse using Solidworks, a CAD application. Prototyped the head mouse using hardware (Breadboard, IMU, circuitry, etc.) and programmed its software (using C++ on Arduino and MatLab)
- Benefit: Enables patients with cervical spinal cord (C1-C4) injuries to operate computers using their heads instead of hands
- Awards: Recipient of UC Irvine research fellowship and California state scholarship

The Role of Machine Learning in the Prediction of Particulate Matter 2.5 (PM2.5) Concentration

- Advisor: Dr. Emily Hsu, Columbia University (through UCI x GATI BEAM Program)
- Synopsis: Reviewed and critically analyzed 7 machine learning approaches for the prediction of the concentration of Particulate Matter 2.5 in cities across the world
- Publication: Accepted by UCI GATI Science Journal

Work Experience

***Web Development Intern*, Rcoz.us** **Apr-Aug 2022**

- Templatized the "Stories" section of the website and converted all stories to the new template using HTML, CSS, JS

***Web Developer*, Light of Truth Center** **Mar-Jun 2022**

- Improved the accessibility and ease of use of the website using HTML, CSS, JS

***Juicer*, Joe and the Juice** **Jun-Aug 2023**

- Demonstrated ability to handle transactions efficiently while maintaining a respectful atmosphere
- Developed customer service skills and collaborated with co-workers to efficiently process orders

Passion Project

Venting Diary **2020 – Present**

- Conceptualized, designed, developed, and launched a mental health Android app; released 5 additional versions
- Built user-friendly features incorporating UI/UX design, privacy (on-device storage), security (biometric/passcode), multimedia diary entries (text/audio), mood tracker with analytics, and others
- Coded using Java and Kotlin on Android Studio
- Impacted 7000+ users in 150 countries, with ~900 monthly active users (and growing)

Awards

- 1st Place, Hack the Mind (Apr 2022)
- 1st Place, Project Venture Investment Hackathon (Mar 2022)
- Most Educational Hack, Midnight Hacks (Nov 2021)
- 2nd Place, Calgary Youth Hackathon (Nov 2021)