

KARTHIKEYAN MANIKANDAN

Kmanika1@asu.edu | (480)791-4959 | [LinkedIn](#) | kmanikandan.com

An inquisitive and studious Biomedical master's student with research experience in human behavior and professional experience in the healthcare industry looking for a position in the biomedical engineering industry

EDUCATIONAL QUALIFICATION

M.S., Biomedical Engineering Anticipated May 2023
Arizona State University 3.92 GPA

B.E., Electronics and Instrumentation Engineering June 2016 - September 2020
Anna University, Chennai, Tamil Nadu, India 3.18 GPA

PROJECT/RESEARCH

Predicting catastrophic behaviour changes that occur during prolonged video game playing May 2022 - Present

- Using emotional/cognitive, Oculomotor and neuro-motor control, and game performance the tilt and flow are detected
- Linear Regression model used to find the out of sample tilt and flow

Silver and gold nanoparticles as a colorimetric biosensor for cancer diagnostics January 2022 - April 2022

- Diagnosed telomerase activity in urine
- Disease detection in urine by the colorimetric sensor in vivo

Silver nanoparticles hydrogel used in dental pulp capping August 2021 - December 2021

- Evaluated antibacterial characteristics of silver nanoparticles hydrogel
- Evaluated the mechanical strength of silver nanoparticles hydrogel
- Evaluated dental capping properties in vivo

Automated monitoring system for heart patients using ambubot December 2019 - September 2020

- This device continuously monitors the vitals of individuals suffering from heart diseases that can summon a robot capable of delivering an Automated External Defibrillator (AED) in the case of a cardiac arrest
- Karthikeyan M, Arvind M, Jagan Sandibp NS, Karthik V, Vijayalakshmi S. (2020) Automated Monitoring System for Heart Patients using Ambubot. International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8 Issue-4, November 2019. DOI: 10.35940/ijrte.D4460.118419

EXPERIENCE

School of Life Sciences, ASU, Tempe, AZ, USA: Graduate Service Assistant (GSA) January 2023 - Present

- Lecture Graduate Teaching Assistant (GTA) for BIO 331 - Animal Behavior Class

Centre for Engagement Science Lab, ASU, Tempe, AZ, USA: Laboratory Aide April 2022 - Present

- Conducting industry projects data collection - using biometrics specialized tools like Eye tracking GSR, HR, Facial recognition available in the lab, data analysis and data dissemination
- Creating protocols, using agile methodology, recruiting participants, and conducting experiments
- Creating reports and communicating results to the employees for future product development

MGM Healthcare, Tamil Nadu, India: Biomedical Engineer January 2021 - July 2021

- Performed preventive maintenance, troubleshooting, and perform repairs on high-end biomedical equipment
- Conducted daily walkthroughs to get requirements from various departments in healthcare. And documentation

Apollo Hospitals, Vanagaram, TN, India: Biomedical Engineer December 2019 - January 2019

- Having been tasked with the responsibility of troubleshooting and maintaining different biomedical equipment

WORKSHOP/PARTICIPATION

Automated care system for bedridden patients using Electrooculography (EOG) July 2019 Participated in DST (Govt. of India) & Texas Instruments India Innovation Challenge Design contest

CERTIFICATIONS AND LICENSES

Certified CPR/First Aid/AED trainer for Adult, Pediatric, and Infant - Issued by American Red Cross (Valid from November 2021 to November 2023) ID Number: 00PQ766

SKILLS

- Python
- Office 365
- Matlab
- HTML
- CSS