

KARTHIKEYAN MANIKANDAN

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To secure a challenging and impactful position in Learning Sciences and Educational Psychology, utilizing my Biomedical background, research experience in human behavior, and passion for education to drive innovative approaches to learning and contribute to the advancement of the field.

EDUCATIONAL QUALIFICATION

Ph.D., Learning Sciences and Educational Psychology August 2023
The University of Iowa

M.S., Biomedical Engineering August 2021-May 2023
Arizona State University 3.93 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 - May 2023

- 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

CLAS, Chemistry Department, UIowa: Graduate Teaching Assistant August 2023 - Present

- Graduate Teaching Assistant for General Chemistry 1 - CHEM 1070
- Sessions - 0003, 0022,0023,0042,0062,0073

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

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

Centre for Engagement Science Lab, ASU, Tempe, AZ, USA: Laboratory Aide April 2022 - June 2023

- 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

SKILLS

Python, Office 365, Matlab, HTML & CSS