

S M Abdullah, PhD

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Summary

Innovative and passionate STEAM educator and AI specialist with a PhD in Information Technology and extensive experience in image processing, computer vision, and embedded systems. Skilled in designing and delivering engaging STEAM programs that foster critical thinking, problem-solving, and hands-on learning experiences for students. Committed to leveraging cutting-edge technologies and interdisciplinary approaches to inspire the next generation of STEAM innovators. Seeking a challenging role that allows me to contribute my expertise in AI, computer programming, and curriculum development to enhance educational outcomes.

Professional Experience

STEAM Teacher, Casey Tech School *January 2022 - Present*

- Design, develop, and conduct digital technology-based STEAM programs following the design cycle for secondary school students across the Casey local area.

STEAM Technician, Casey Tech School *February 2021 - January 2022*

- Designed, prepared, and ran digital technology-based STEAM programs for secondary school students across the Casey local area.

Casual Software Engineer, Additive Assurance *September 2020 - November 2020*

- Enhanced 3D printing by identifying defective regions in real-time using deep neural network models.

Graduate Teaching Associate, Monash University *March 2015 - July 2021*

- Conducted several undergraduate-level courses, including practical classes, assessments, student consultations, and final exam marking.

Casual Sessional Staff, RMIT University *March 2020 - June 2020*

- Conducted the postgraduate course COSC2531 [Programming Fundamentals].

Lecturer, United International University, Bangladesh *January 2011 - February 2019 (including study leave)*

- Conducted undergraduate courses, prepared and moderated exams, and managed exam results.

Education

Monash University, Australia

- *Doctor of Philosophy (PhD), Information Technology*
 - March 2015 - June 2019
 - Research: Analysis and development of hierarchical algorithms for unsupervised learning in image segmentation and data clustering.
 - Thesis Title: [Novel Parameter-less Hierarchical Algorithms for Image Segmentation and Data Clustering.](#)
- *Master of Philosophy (MPhil), Information Technology*
 - April 2013 - October 2014
 - Marks: 94% (H1)
 - Award: Vice-Chancellor's Commendation for Thesis Excellence 2014
 - Thesis Title: [Height Adaptive LiDAR Segmentation for Building Extraction and Roof Reconstruction.](#)

University of Dhaka, Bangladesh

- *Bachelor of Science (BS), Computer Science & Engineering*
 - April 2006 - December 2010
 - CGPA: 3.76 out of 4.00
 - Thesis Title: [Congestion Control in Wireless Body Sensor Networks](#).

Certifications

Certification	Date	Institute
Cert. IV in Training and Assessment	September 2021	Monash Student Association (Clayton) Inc.
VEX IQ Educator Certification Exam	May 2021	VEX Robotics
Parallel Programming in Java!	September 2020	Coursera Course Certificates
Front-end Web development with React	August 2020	Coursera Course Certificates
Front-end Web UI and tools Bootstrap 4	July 2020	Coursera Course Certificates
Learning Django	July 2020	LinkedIn Learning
Learning React.js	June 2020	LinkedIn Learning
C++ Best Practices for Developers	July 2019	LinkedIn Learning
C++: Smart Pointers	July 2019	LinkedIn Learning

Software Projects

- **Find a GitHub User:** A React app connecting to the GitHub API to display information about users.
- **CTS CMS:** A resource management software for educational institutions with desktop and mobile applications.
- **FlywithMe:** A Python GUI project using PySimpleGUI to control a Tello Edu drone.
- **Easter Egg Hunt:** A picture game application using Kivy for the GUI interface.
- **Weather App:** A Python project using PySimpleGUI and API calls to display weather information based on the user's postcode.

Academic Publications

Please refer to my [Google Scholar Profile](#) for an up-to-date list of research publications.

Awards and Achievements

- DICTA 2016 APRS/CiSRA Best Student Paper Award
- Travel grants to attend DICTA 2016, Gold Coast, Australia
- IPRS and APA scholarships for PhD at Monash University
- DUPRS scholarship at Deakin University (not availed)
- Travel grants to attend ICME 2014, Chengdu, China
- Postgraduate Publication Award (PPA), Monash University
- 4th position in International Robotics Intelligent Systems Competition 2010, NextSapiens, India
- 4th position in NSU Computer Programming Contest 2007, Team "DU BRAVE HEARTS"