

Tathagata Sikdar

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Skills

Languages HTML • CSS • JavaScript | ARM Assembly • C • C++ • Python • Java | MATLAB • Maple • LaTeX
Software Fusion 360 • Inventor Pro • Multisim | Illustrator • Photoshop • Premiere | MS Office Suite

Work Experience

STEM Robotics Instructor | Senior Curriculum Developer • Python • AI & ML Toronto, ON
Inspirely Education Sept 2022 - Jan 2022

- Developed engaging project-based Python, Scratch, and Math curriculum, **increasing customer base by 15%**
- Collaborated with colleagues in developing benchmark lessons and identifying curriculum needs of faculty
- Established training documentation and tools to address needs of specific age groups
- Taught engaging online classes using project-based learning

Lead Computer Science Instructor • HTML • CSS • JavaScript • Python • Premiere Mississauga, ON
NextGen Learning Inc. June 2022 - Sept 2022

- Delivered engaging curriculum through diverse methods of classroom instruction, computer lab activities, course work, camps, and online learning systems
- Assessed, documented, and reported on student progress in JavaScript, Python, and Scratch courses
- Distributed clear, effective feedback to improve efficiency and quality of student-written programs
- **Addressed systematic issues** with camp and computer science curriculum by collaborating with colleagues

Math & Reading Instructor • Excel • Photoshop Mississauga, ON
Kumon Institute Education July 2017 - March 2022

- Implemented peer tutoring systems to enhance comprehensive understanding of math techniques and increase student test scores
- Designed and **managed online learning programs** and study sessions
- Trained new employees regarding instructional techniques and company policies

Projects

Sunny - IoT Sunrise Alarm Clock • C • HTML • Fusion 360 📄 Git Repo
Personal Project

- Created an **IoT** sunrise alarm clock using an ESP8266 micro-controller
- Designed and **3D printed** a well fitting enclosure to house all electronics
- Implemented **REST API** endpoints in C
- Integrated Sleep as Android and Tasker to automatically create an artificial sunrise before any set alarm

Auto Monitor Brightness • C • Python • Fusion 360 📄 Git Repo
Personal Project

- Created an adaptive monitor brightness system using an Arduino Nano
- Designed and **3D printed** an enclosure to seamlessly attach to any monitor
- Developed C program to periodically monitor and send changes in ambient light data using COM protocols
- Developed a **Python algorithm** to change monitor brightness values using HDMI protocols

Ongoing Education

B.Eng in Mechatronics Engineering Co-op Hamilton, Ontario
McMaster University Sep. 2021 - Apr. 2025

- Courses: Robotics, Control Systems, Electronics, Mechanical Design, Mathematics
- Cumulative GPA 3.9 / 4.0