Riju Sikdar

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1291 Gordon St, Apt 412, Guelph, ON N1L 0M5

Available for 4-month or 8-month co-op

Education

Bachelor of Engineering (Co-op), University of Guelph   2016 – 2025
Major in **Engineering Systems and Computing**

Ontario Secondary School Diploma, Port Credit Secondary School   2012 – 2016
Graduated **with Honours** from **Sci-Tech Regional Program**

Work Experience

Java Learning Assistant   May 2018 – Aug 2018
Sheridan College – Trafalgar Campus

- Helped students learn programming concepts and troubleshoot in multiple languages (primarily Java) though drop-in sessions, appointments and class visits
- Learned to create Java GUI applications using Java FX
- Held exam review seminars with prepared exam style questions
- Posted timely announcements in class portal website to ensure students' success in upcoming projects
- Presented relevant announcements in class and reminded students of available tutoring resources
- Created posters for tutoring center and business cards for staff
- Worked flexibly in both Trafalgar and Davis campus locations

Robotics Instructor   Jul 2017 – Jul 2017 (3 weeks)
Durham District School Board – Lakewood Public School

- Familiarized elementary school children with basic robotics skills in summer learning program to develop interest in STEM fields from a young age
- Taught basic programming skills and encouraged critical thinking and design skills using robotics kits by having students build and program without the use of instruction booklets
- Encouraged group engagement to complete tasks within a time limit
- Adapted teaching schedule based on primary classroom teacher's needs day to day

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Projects

Crows Nest – Motion Detection Camera   Jan 2018 – Present (ongoing)
Github.com/Rr9/CrowsNest

- Using Python and OpenCV, computer vision designed by Intel to identify key frame differences in video
- Start recording 10 seconds preceding detected motion, overlay time stamp and recording sign on frames
- Change framerates from passive monitoring to active recording for lower memory consumption
- Email notification with timestamp when motion is detected
- Using object-oriented programming in Python to learn OOP syntax and methodologies specific to Python

Computer Controlled RC Car   Jan 2018 – Feb 2018
Github.com/Rr9/arrowKeyRC

- Used old RC car, Arduinos, wireless radio chips, sensors, and motor controllers to control car using computer arrow keys
- Programmed in Python, PyGame and C, using the computer's USB port to transfer key strokes to radio chips to send to the car

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Proficiencies

- **Languages:** C, C++, Python, Java, VHDL, GIT
- **Web Dev:** HTML5, CSS3, JavaScript & JQuery, PHP, SQL
- **Hardware:** Arduino, Interfacing Sensors, Vex Cortex, FPGA
- **Software:** Adobe Photoshop & Illustrator, LINUX OS, SolidWorks, MatLab