ANGELA ZHOU

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SKILLS

Technical Skills: Python, C++, Java, Github, Solidworks, AutoCAD, Fusion 360, Mechanical Design, Screwdriver

Soft Skills: Project Management, Communication, Critical Thinking, Self-Motivated, Detail-Oriented, Adaptability

Hobbies: Game Development, Robotics, Public Speaking, Debate, Painting, Piano, Flute, Badminton, Dance

EDUCATION

University of Waterloo | BASc in Mechatronics Engineering, Honours Co-op

Sept 2024 - Present

EXPERIENCE

Programming/Robotics Instructor | Exceed Robotics

Apr 2024 - Jul 2024

- Educated students in developing games in **Python** utilizing arrays, classes, and Pygame.
- Delivered engaging robotics lessons in C, Arduino, and Fusion 360 to guide students in creating classroom projects, such as creating and controlling a mechanical arm, using sensors to perform autonomous tasks, etc.
- Performed regular maintenance on Lego Mindstorm EV3 and VEX IQ Robots, increasing efficiency throughout classes.
- Utilized effective classroom management techniques to facilitate a productive classroom environment.

Programming Instructor | Code Ninjas

Jul 2022 - Mar 2024

- Directed teams of 5 colleagues in several week-long summer camps, including MakeCode, Micro:bit, Scratch, etc.
- Engaged junior students in personalized lessons with Snap Circuits and Scratch Junior, achieving 100% return rate.
- Guided students through complicated game development projects using **Javascript**, **Lua**, **MakeCode**, **and Scratch**.
- Fostered an encouraging work environment through a positive attitude and an easy going personality.

Team Captain, Lead Designer | VEX STL Ghost 82855G

Jun 2022 - Feb 2024

- Coordinated meetings and delegated roles for a full-roster VEX Robotics team to facilitate crucial discussions regarding robot design, autonomous routing, and season scheduling.
- Designed all CAD models of the robot in **Fusion 360** to qualify in provincials for both 22-23 and 23-24 VEX Robotics Competition seasons and reaching semi-finals at 23-24 Brampton VRC.
- Mediated conflicts by organizing mandatory team discussions to sort through problems and develop effective solutions.
- Trained several new members in designing, building, and notebooking to increase experience in all applicable engineering roles.

PROJECTS

Rakan's Feather | Java, AWT Graphics, AWT Events, Swing | github.com/BarSoapIllumi/RakanGame

2023

- Implemented AWT libraries to create a interactive exploration role play game (RPG) with fully custom visuals and backing tracks.
- Demonstrated a strong knowledge of Object Oriented Programming through extensive uses of classes, inheritance, polymorphism, and encapsulation.
- Received 100% as the grade of the final project of ICS3U

Midnight Sun Rear Hub Design | Solidworks, Finite Element Analysis (FEA)

Sept 2024 - Present

- · Designing a rear wheel bearing hub for University of Waterloo Midnight Sun Solar Car Team by remodeling the previous motor hub using Solidworks.
- Collaborating with 6 students to compete in the Rear Hub Design Sprint, completing design testing utilizing FEA.