VISHVAM MAZUMDAR

Mechatronics Engineering Student

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SKILLS & SUMMARY

- Software: ROS, C++, Python, Linux, JavaScript, AutoCAD, SolidWorks, Inventor, MATLAB, Git
- Skills & Machines: GD&T, rapid prototyping, drill press, band saw, milling machine, lathe
- Work as software engineer developed strong critical thinking and debugging skills
- Vast experience leading teams in designing, programming, machining, and building projects
- Placed 2nd worldwide on NASA Contest and was recognized by Prime Minister of Canada

EXPERIENCE

Junior Software Engineer, Yaar – Summer 2017

- Programmed entire company website (yaar.ai) with ***HTML***, ***CSS***, ***JavaScript***, JS libraries (e,g, ***jQuery***)
- Organized and developed the frontend of the internal dashboard with ***ReactJS*** and ***SASS***
- Developed the backend of the internal dashboard with ***SQL*** and ***NodeJS***
- Processed images used to train image processing system using ***Scikit*** and ***OpenCV*** on ***Python***
- Set up entire code checking system for dashboard with ***ESLint*** and used ***Git*** to manage projects

University of Waterloo Robotics Team – Sep 2017 to Present

- Dimensioned various ***SolidWorks*** parts and ***AutoCAD*** drawings and machined them for robot
- Programmed unstuck algorithm for UW rover using ***ROS*** with ***Python*** and ***C++*** on ***Linux***
- Wrote low-level firmware with ***C++*** to control movement and read sensor data on embedded systems
- Built a line following, music playing robot with self-made audio circuit that placed 3rd for intro challenge

Tutor, Kumon – Dec 2016 to Apr 2017

- Taught primary school students advanced math including integration, series, and linear algebra
- Multitasked in a fast-paced environment, teaching up to 4 children at a time

PROJECTS AND ACTIVITIES

Engineering Club President and Founder – Dec 2016 to June 2017

- Taught over 40 students ***Java*** along with algorithms and structures in preparation for CCC
- Taught students ***Autodesk***, 3D printing, and ***Arduino*** to compete in RobOlympics

Clothes Folding and Sorting Robot– Nov 2017 to Dec 2017

- Wrote algorithms to fold and sort clothes by color using C on an EV3 Brick Microprocessor
- Designed responsive button-based interface on EV3 microcontroller unit

Handwriting Software @ Cipher– Dec 2016

- Created software with ***C#*** that would train with the users handwriting and produce output in the users handwriting based on what was typed in

ACHIEVEMENTS

NASA Space Settlement Contest – 2nd Place in the World

- Designed space settlement that can support 10,000 with detailed plans for energy, basic needs, R&D, etc.
- Competed against over 6000 students across the world
- Received letters of congratulations from Prime Minister Justin Trudeau and President of the CSA

Top Student in Peel District with 100% gr. 12 average

1st Place University of Waterloo Mechatronics Competition

EDUCATION

- Key Courses: Algorithms and Data Structures, Digital Computation, Circuits – 4.0/4.0 Cumulative GPA
- Key Content: OOP, Real-Time Programming, ***MATLAB***, ***SolidWorks***, ***AutoCAD***, GD&T, Robotic Arm

INTERESTS: Food, Physics, Swimming, American Football, Origami, Heights, Travelling