



Yash Bhardwaj

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OBJECTIVE

Apply my knowledge of computer science along with comprehension of other STEM fields to build a career in Software Engineering. And obtain a challenging position where I can leverage my abilities to benefit the organisation.

EXPERIENCE

Garrison Technology Ltd, London – Software Engineer

October 2021 - Present

SkyLift UAV, London – Software Developer

June 2021 - October 2021

- Designed & built a video streaming module for UAVs.
- Researched and implemented complex computer vision problems.
- Rewrite software modules from python -> c++.

Middlesex University, London – Student Learning Assistant for Science and Technology

October 2018 - March 2020

- Teaching Assistant for all computer science modules in-class and out-of-class.
- Assisted teaching staff to conduct workshops and tutorials.

IoLight, London – Contract work as a Linux Stack Developer

October 2018 - February 2019

- Maintenance of the Linux Software stack for different models of Microscope.
- Helped to develop a method of upgrading to a new hardware revision.
- Reducing the resource foot-print of the current embedded OS and software stack to allow for OTA, and prototyping A/B OTA update model.

Self Employed, Mumbai – IT Services & Repair

January 2014 - July 2017

- Contract work for local MSMEs and shops – IT setup, maintenance and repair work

PROJECTS

- Developed from scratch rudimentary Computer-Vision program for automatic navigation through an obstacle field in a functional programming language. [[Computer-Vision](#)] [[Robotics](#)] – April 2018 - 2 weeks
- Programmed software for emulating an automatic manufacturing/assembly line in C++. [[Automation](#)] [[Robotics](#)] – March 2018 - 4 weeks

- Programmed & deployed an e-commerce website with backend and front-end implemented using JS, PHP, HTML, CSS. [[Webdev](#)] – February 2019 – 3 weeks
- Created a robot for automatic surveying of residential properties for the construction industry using ROS in C++. [[Robotics](#)] [[Automation](#)] – December 2020 – 6 weeks
- Designed and implemented a full test suite of unit, integration, and system tests with full code coverage. Also verifying and validating the correctness of the program. White-box testing. [[Testing & Verification](#)] – March 2020 – 2 weeks
- Programmed a Serial Port i/o library; and a simulation library using curve fitting and data analysis. Created a mathematical function conforming to the behaviour of the object to be simulated for a linear encoder in C. Using which researched and solved a complex problem of MIMO PID control system for a Virtual Reality platform – created an API and testing/benchmarking suite. [[Embedded-Systems](#)] [[Control-Systems](#)] [[Simulation](#)] [[Testing & Verification](#)] – April 2020 – 9 weeks
- Developed and hosted a portfolio/blog website using Jekyll, HTML, CSS, Javascript, NGINX and LetsEncrypt. [[Webdev](#)] – April 2021 – 3 weeks

EDUCATION

Middlesex University, London – BSc Computer Science

September 2017 – September 2020

- Achieved First Class with Honours
- Elected Modules: Testing & Verification, Systems Engineering for Robotics, User Experience & Design, Distributed Systems & Networking, Web Applications & Database, Systems & Architecture, Software Development & Programming.

Technological Skills

- Testing, Verification & Validation
- Learning Linux Kernel Development
- Virtualisation & Containers
- Open Source Development & Licensing
- UI / UX Design
- Microcontroller & Embedded systems
- x86_64 and ARM software development
- UNIX utilities
- Full Stack Web Development
- Git version control system

Programming Proficiency in

- C & C++
- Java
- Python
- Scripting languages like Bash, Perl
- HTML, CSS, PHP, Javascript, Node.js
- MongoDB & Other NoSQL Databases
- Erlang
- Racket
- Robot Operating System (ROS)

EXTRA CURRICULAR

- Learning to programme for automated industries on a PLC – learning SCL, STL, LAD, and FBD in the process.
- Representing Middlesex University at multiple different trade shows throughout the UK – London, Birmingham, Manchester
- Conducting after school programming workshops for primary schools students as part of MDX University outreach programs

AWARDS

Winner of the First Year Computing Challenge at Middlesex University
World Skills UK 2019 – Automation Regional Competitor