Name BEng(Hons)

Street, Suburb, State   ⋯   +99999 999 999   ⋯   email@email.com   ⋯   linkedin.com/in/etc

Mechatronics Engineer from University with 1 year of software and electronic design, and 3 years of experience in project management and teamwork from managing the University Robotics Club and leading a robotics team to compete internationally with budget of $110,000. Great communication skills and ability to work under pressure. Passionate about finding new skills to develop. Willing to relocate.

Skills

Skilled in

Languages - C, C#, Python, SQL
Software – Unity3D, Visual Studio, Blender3D, Arduino, Xamarin, Excel, MATLAB, Autodesk Inventor, Solidworks, AutoCAD, Windows

Project management experience (company a, group, company b, rocketry group)

Senior First Aid (HLTAID002, HLTAID003, HLTFA331A)

Team project experience

Familiar with

C++, Linux/Unix, Git, Java, VBA, OpenCV, PLC Programming, Electronic Design, VHDL, JavaScript, Control Systems, Mechanical Design, Gearboxes, Pneumatics, 3d Printing, LabVIEW, ROS, SCADA

National Police Clearance (Application No. 9999999)

Experience

January 2018 – October 2018

Software Intern at Company A

- Worked on VR Platform, a Virtual Health and Virtual Reality imaging platform to view CT/MRI/PET Imaging data for medical specialists and educational purposes.

  VR Platform
- Created a C# UDP Multiplayer server for Unity to support other users joining and creating a session, minimizing packet size where possible.
- Added Cisco Spark (now WebEx Teams) support to Unity using a separate C# backend interacting through TCP locally.
- Co-designed, managed, and programmed a five-camera photogrammetry setup to create 3d models of a user's head, with the front end designed in Python using an API backend to take photos in conjunction with C++ and Arduino.
- Worked on a Point of Sale system using Visual Basic with a custom database infrastructure to synchronize between a head office and individual branches, and integration with web orders.

August 2017 – December 2017

Technical Intern at Company B

- Designed and created a custom prototype solution to detect bolts stuck in an escalator using a Raspberry Pi, a USB microphone, and Python, by analyzing for the resonant frequency of the bolt scraping the escalator in real-time using Fast Fourier Transform.
- Developed an app in Xamarin with C# to interact with a SQL database to alter and display parameters within the app. Used QR code reading to match a serial number to a known serial in the database.

April 2015 – Current

Mentor at University

University Robotics Competition Team Lead Mentor

- 2018 Vice Team Lead for Team name a, Australia regional winner to compete in Place, USA. Competed in the World Championships, finishing in the quarterfinals.
- 2017 Team Lead for Team name a, "Award" award winner to compete in Place, USA for the World Championships.

- 2016 Team Lead for Team name b, competed in Sydney.
- 2015 Vice Team Lead for Team name b, competed in Sydney.
- Lead a team of 30 high school students to build a robot for the Robotics Competition with weekly Sprint meetings.
- Developed a 1:1 Virtual Reality field for the Robotics Competition that had interactive field elements, drivable robots based on the actual Computer Aided Designs of the team's robots, with full teleportation locomotion.
- Approved working drawings and electrical wiring before manufacture or being used on the robot.
- Created a GUI for an SQL Inventory system in C# used by 60 people.

2016

Company Robotics Partnership with a University team

- Integrated facial recognition with the REEM PAL Robotics Robot using C++ plugins written for Robot Operating Software ROS.

Education

Graduated 2018

BEng Mechatronics Engineering (Hons) –University, Australia

- Completed a final year thesis project to control a three Degree of Freedom Rehabilitation Platform using Unity, C#, C++ (Arduino), and Virtual Reality.

    System used three Festo linear actuators controlled with individual Festo motor controllers with a custom motion profile to suit a smooth user experience, with an Arduino communication through serial to a Unity application for external control.

- List of units (Mechatronics, Mechanical, Electrical, Control Systems)

Extracurricular Experience

April 2018 – October 2018

Avionics Tech Lead for Uni Rocketry, for a Rocketry Competition

- Managed a team of 5 people for the Avionics sub team and meeting with the other tech leads.
- Checked and approved electronic device selection for sensors and communication equipment.

Global nominee for Hackathon, with over XX,000 participants worldwide, using an innovative method of bringing scientific data closer to students and have implemented a prototype of a visualization software using augmented and virtual reality technologies that can be easily employed in the classroom.

link to challenge submission

2015 – 2016

Robotics Club President

- Directed club meetings, facilitated social and technology events for 30+ people, designed and ran a competition for 16 people.

2014 – 2018

Volunteer for FLL Lego Competition

- 2014 Referee; 2015 Score keeper and DJ; 2016 Pit admin and DJ; 2017 Lead Robot Design Judge; 2018 Core Values Judge and DJ.

Personal Interests

Arduino projects, Unity 3d prototypes, Hackathons, Producing music electronically.

References available on request.