Hydro Burst Website

The purpose of developing the Hydro Burst website was to provide a means that which stakeholders of the Organization could follow ongoing development of the Remotely Operated Underwater Vehicle or R.O.U.V. By uploading monthly iteration reports detailing the construction progress of the R.O.U.V, the Organization intended to maintain a transparency between stakeholders and itself.

Utilizing HTML, CSS, Bootstrap and JavaScript; I developed the front-end of the Organization’s website with transparency in mind. By implementing Bootstrap’s grid features, I could develop a clean and easily navigable website resulting in a friendly user experience. Additionally, by coupling HTML and CSS elements I could make precise adjustments in fonts, images, margins, and even embedding PDF files within HTML pages. As a result, I ensured that the stakeholders could acquire monthly iteration reports with great ease.

Consequently, I established and maintained trust through transparency between the Organization and its stakeholders. Thereby, ensuring ongoing funding for the R.O.U.V during the mechanical and software development process.

R.O.U.V

The development of the Remotely Operated Underwater Vehicle or ROUV was in response to the upcoming International 2016 MATE Competition. The Hydro Burst organization subsequently sought to develop comprehensive technical requirements to construct an ROUV capable of undertaking missions set up by MATE.

By introducing techniques such as Agile-Scrum to manage mechanical and software development, I established a foundation on which the ROUV would be built upon. To ensure that vehicle operators could control the ROUV, it was mission critical to develop a network infrastructure between the vehicle and the Operator’s controller.

To achieve this, I utilized C#, .NET, and C to develop two programs that would open UDP sockets between the ROUV’s motherboard and the Operator’s computer. As a result, the ROUV could receive instructions and send sensor data to the Operator in real time.

To achieve this, I utilized C# and .NET to create a program that would interpret the raw data being received from the Operator’s controller to understandable instructions by the ROUV. Subsequently, it was prudent to create sockets with the ability of receiving and transmitting packets of data. To do so, I utilized C# and .NET to create a UDP socket on the Operator’s computer that could transmit instructions and receive ROUV sensor data. Concurrently, I also utilized C to create a UDP socket on the ROUV’s mother board with the ability to transmit ROUV sensor data and receive instructions from the Operator.

To achieve this, I created two programs utilizing C#, .NET, and C to open UDP sockets between the Operator’s computer and the ROUV’s motherboard. Subsequently,

opened two UDP sockets to establish communication between the Operator’s computer and the ROUV. , one on the

that could receive sensor data and transmit ROUV instructions. In addition, I utilized C to open a UDP socket on the ROUV motherboard which enabled the ROUV to recieve instructions and transmit sensor data to the Operator.

By establishing a connection between the Operator’s computer, router, and

, I utilized C# .NET and created UDP sockets to establish network infrastructure between vehicle and controller.

to send data packets in intervals created a network infrastructure between vehicle and controller.

I was charged with; creating a network infrastructure between vehicle and controller, developing a primitive Artificial Intelligence, routines

To establish a network infrastructure between vehicle and controller, I utilized C# .NET and created UDP sockets to send data packets in intervals

By introducing project management techniques into the organization

the demands of the missions required to be undertaken by the ROUV set up by the mission manual issued by MATE.

Hi, I’m Ruben.

I’m a graduate from the University of Houston with a B.S in Computer Science and a B.S in Mathematics, I thrive on facing evolving challenges that require innovative and cost-efficient solutions.

Individually and within a team, I’ve worked on numerous projects ranging from robotics, games, websites, and medical equipment; as a result, I’ve learned to design and implement software based on technical requirements set up by the stakeholder. In addition, I take great strides to learn and apply new skills to develop innovative solutions to solve complex challenges.

At heart, I’m a passionate problem solver who find greats thrill in meeting challenges that require thinking outside of the box. When I’m not busy trying to solve a problem, I’m growing and learning new skills like a new methodology, programming language, or even a spoken language. There is no limit to what fascinates me, there is an entire world full of new experiences and techniques to learn.

Let’s work together and coalesce our skills and experiences to solve the greatest of challenges whilst we learn from one another.

Through best practices and Test Driven Development

I’ve worked on numerous projects ranging from robotics, games, websites and medical equipment;

In my free time, I look to solve problem by developing RPA scripts to automate redundant tasks in my daily life

Let’s work together to solve these challenges.

Hey, I'm Brittany.

I'm a design-minded, detail oriented software engineer passionate about combining beautiful code with beautiful design.

I'm a fourth year student at Northeastern University in Boston studying computer science and interaction design. I have experience developing and designing software for the web, from simple landing pages to progressive web applications. I strive to create software that not only functions efficiently under the hood, but also provides intuitive, pixel-perfect user experiences.

I love learning new and better ways to create seamless user experiences with clean, efficient, and scalable code. I consider work an ongoing education, and I'm always looking for opportunities to work with those who are willing to share their knowledge as much as I want to learn. At the end of the day, my primary goal is to create something beautiful with people that bring out the best in me.

When I'm not in front of a computer screen, I'm probably snowboarding, traveling, petting dogs, or learning a new song on my uke.