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John Bartos

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Experience

Full-Stack Engineer **DataOnline LLC** **June 2014-Present**

- Leading the project to develop a responsive asset monitoring site with React/Node, providing mobile access to thousands of users
- Built the foundation for the React project, establishing design, best practices, and testing procedures in addition to documentation
- Designed a React component to responsively size d3.js data visualizations, enabling their usage across mobile devices
- Developed microservice to improve tank service life by detecting and recording fill events, leading to millions in customer savings
- Enabled integration of hundreds of foreign telemetry units by developing microservice to normalize file-based data transmissions
- Loosened coupling between services and increased backend load capability by 10 times by engineering a reliable publish-subscribe message brokering microservice using WCF and MSMQ
- Mentored two new developers through pair programming and code review, resulting in quicker onboarding and better work
- Assisted in acquisition of a new customer through regular collaboration on solution design and implementation of deliverables
- Integrated new class of telemetry units with DataOnline's platform by architecting RESTful API microservice via ASP.NET
- Enhanced developer collaboration by spearheading initiative to establish peer-review process using GitHub's pull requests
- Built a microservice to monitor network health between Dolv3 and over 150,000 remote telemetry units in real-time
- Improved telemetery packet status page load time by 30 seconds by offloading calculations from SQL to a new microservice

Research Intern **Sequence Analyzing and Modeling Lab** **May 2013-May 2014**

- Engineered drone tracking algorithm by utilizing color segmentation and blob detection with a custom marker, achieving recognition in approximately 3ms in an area of $3m^3$. Utilized parallelization to run continuously at 30FPS
- Developed drone control algorithm by building a PID controller in a feedback loop with the Kinect's camera, achieving ability to move at 1m/s to a destination and halt
- Utilized a Kinect and a projector to draw the predicted landing point of a ball 0.5 seconds before it lands to an accuracy of 3cm

Education

School of Engineering **Rutgers, the State University of New Jersey** **Fall 2010-May 2014**

- Bachelor of Science, Electrical and Computer Engineering, May 2014. GPA: 3.068

Projects

Personal Website

- Independently designed and constructed a personal website and blog for showcasing projects, skills, and experience
- Developed as a single-page application using the MEAN stack, styled with Bootstrap, and deployed on AWS

Radio Free Twitch

- Developed application to extract audio from any Twitch.tv HLS stream using Node.js and Express. Utilized Node streams to efficiently manipulate and serve data
- Created companion SPA website with Angular.js to consume API and stream audio-only Twitch.tv content

React-Devilish

- Developed a minimalistic full-stack React/Flux/Node/Express Yeoman scaffold for web projects and to showcase best practices

Contributions-Chiptune

- Built a JavaScript function using Web Audio API to make music using the Git contributions graph

How to Fit D3 Inside React

- Developed a sample project and presentation on how to responsively size visualizations with React for the Node NYC JS meetup

Skills

Languages: C#, JavaScript, HTML5, CSS3, Python, PowerShell, Bash, SQL
Technologies: MongoDB, Express, Angular, Node, React, Flux, Bootstrap, Visual Studio, SQLServer, Microsoft.NET, ASP.NET, Git