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John Bartos

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Experience

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

- Leading project to replace Silverlight website with a MEAN stack implementation, with alpha version showing approximately 400% speed increase
- Engineered reliable publish-subscribe message brokering microservice using WCF and MSMQ, eliminating coupling between services and achieving performance to handle ten times existing volume
- Automated testing of message broker interfaces via NUnit and Powershell, achieving 100% coverage of client interfaces
- Spearheaded successful initiative to establish peer-review process using GitHub's pull request feature
- Mentored two new developers through pair programming, code review, and education of design patterns and best practices
- Independently architected RESTful API via ASP.NET to receive and parse transmissions from new eWon telemetry units
- Assisted in acquisition of a new customer through regular collaboration on requirements, solution design, and implementation of deliverables over a period of two months
- Built a microservice to monitor network health between Dolv3 and over 150,000 remote telemetry units in real-time
- Improvedpacket status page load time by 30 seconds and reduced SQL reads by over 2 million per minute, per page instance by implementing microservice to perform packet counting in memory. Optimized service via caching
- Designed RESTful token-based authentication microservice in ASP.NET, providing tokens in approximately 20m**s**
- Overhauled JavaScript mapping application, streamlining interface and providing Baidu Maps support for customers in China
- Enabled automated deployment of 23 Visual Studio 2013 projects by developing a process for creating WiX Installers

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 projector to draw the predicted landing point of a ball 0.5 seconds before it landsto 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 SPA website with Angular.js to consume API and stream audio-only Twitch.tv content

3D Printer Probe Configurator

- Built a GUI in Python to simplify configuration of Z-Probes for 3D printers using Marlin firmware

Skills

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