

Tyler S. Roesler
Software Developer and Engineer
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SKILLS:

Languages: C#.NET, JavaScript, Python, C/C++, MATLAB, Ruby
Web: HTML, CSS/SCSS, jQuery, React.js, Rails, SQL
Operating Systems: Unix/Linux (primarily Debian), MS Windows, Mac OS
Development Technologies: Git/GitHub, Visual Studio and VS Code, Microsoft Azure, Xamarin
Specialized Coursework: Intro to AI and Knowledge Engineering, Senior Project, Assembly Language and Computer Organization, Intro to Operating Systems, Software Engineering, Relational and Object Databases, Digital Image Processing and Machine Vision, Mobile Aesthetic Design
Certifications: Xamarin Certified Mobile Professional

EXPERIENCE:

- Embedded Software Engineer** **Present**
Northrop Grumman
- Aid in the development of a highly distributed radar system in use on several aircraft in the defense industry for mission intelligence and surveillance.
 - Primarily work on the front-end UI, utilizing Microsoft's WPF, to display mission critical information to users in a clear, configurable, and usable manner.
 - Strong adherence to the MVVM architecture
 - Utilization of the plugin architecture to allow a high degree of configurability while maintaining a strong separation of concerns
 - Interfacing with several other distributed services necessary in use of the radar (usually in the form of plugins)
- Support Engineer** **Feb 2018 – Mar 2019**
Microsoft *Las Colinas, TX*
- Provide technical support for developers and IT professionals utilizing Microsoft's Azure Bot Services to empower user interactions and the Xamarin platform to build cross-platform mobile applications using C#
 - Quickly understand, troubleshoot, and resolve technical issues within complex environments to continue empowering our customers with our development technologies
 - Learn and grow with the services as they mature, and help educate customers on these changes and how to stay current in the ecosystem
 - Constant research and on-the-job learning to understand various development technologies and concepts that our customers are using in their projects
- Prototype Applications Developer Intern** **Summer 2017**
Ortho Clinical Diagnostics *Rochester, NY*
- Researched, implemented, and tested several Bayer-format image demosaicing techniques and their impact on image processing and machine learning tasks
 - Developed a server-client software system for the interaction between an embedded microcontroller and a Windows system
 - The client application was written in C#.NET and WPF with concern for UX/UI design principles and VOC requirements
 - The basic server system was written in Python
 - Designed and implemented a locally-based MS SQL Server for use with the WPF application utilizing Entity Framework and a generic DAL
 - Observed and participated in the entire software and product development lifecycles

PROJECTS:

- Personal Portfolio Website - TylerRoesler.com** **Spring 2018**
Technologies: React.js, Webpack, Web Hosting and Web Optimizations
- Feedback Control System for Autonomous Flight Tasks with Drones** **Fall 2017**
Technologies: MATLAB, Simulink, Embedded C (Linux), Control Theory
- Maze Solving Application Using Artificial Intelligence** **Fall 2017**
Technologies: C++ and STL, Windows API, Artificial Intelligence, Heuristic
- Traffic Sign Recognition System Using a Deep Neural Network** **Spring 2017**
Technologies: Python, OpenCV, Keras, Machine Learning, Image Processing