Tyler S. Roesler
Software Engineer
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SKILLS:

Languages: C/C++ and the STL, Python, C#.NET, Octave (MATLAB), Ruby, Java
Web: HTML5, CSS/SCSS, JavaScript/jQuery, Rails and MVC, PHP, SQL (MySQL, Oracle)
Operating Systems: Unix/Linux (primarily Debian), MS Windows, Mac OS
Development Technologies: Git/GitHub, Subversion, OpenCV3, Anaconda, Windows Presentation Foundation and MVVM, Microsoft SQL Server and Entity Framework
Concepts: Software Design Patterns, Agile, Waterfall, and XP methodologies, OOP
Traits: Constantly produce work beyond the base requirements, quick learner who can produce results, strong communication skills both written and oral, and a general excitement toward the field of computer science!

EDUCATION:

State University of New York at Fredonia — **Fredonia, NY**
Bachelor of Science in Computer Science — **Expected December 2017**
In-Major GPA: 3.74

PROJECTS:

- Researched and developed real-time, closed-loop feedback control systems for autonomous flight tasks using MATLAB and Simulink.
- Developed a path-finding application in C++ to demonstrate concepts in Artificial Intelligence.
- Collaborated in a small team to develop algorithms to segment American standard traffic signs from an image and classify them using a Deep Neural Network in Python3 using Keras, OpenCV, and Anaconda. Accompanied by significant research in the fields of computer vision and machine learning.
- Team leader for BookOrder, a Rails based web application to aid teachers in ordering books for the following school year. Included research into consumer need and followed closely with the MVC software architecture.

SPECIALIZED COURSEWORK:
In Progress: Intro to AI and Knowledge Engineering, Senior Project, Assembly Language and Computer Organization, Intro to Operating Systems, Software Engineering
Completed: Relational and Object Databases, Digital Image Processing and Machine Vision, Mobile Aesthetic Design

EXPERIENCE:

Ortho Clinical Diagnostics - Rochester, NY
Prototype Applications Developer Intern, Summer 2017

- Developed working models of the product in question from the basic hardware to the complex software and graphical user interface
- Observed and participated in the entire software and product development lifecycle, starting early Phase I of a new project and aiding in its development leading into Phase II. Included experience developing various design documentation
- Developed and honed skills in several technologies including:
  - Raspberry PI Linux development using Python and the RPi.GPIO library to develop the software to drive the hardware subsystem. Included learning and developing embedded hardware systems
  - C#.NET development (WPF and WinForms) to leverage the existing WinForms application into a design with concern for user experience design and voice of the customer requirements
  - Designed and implemented a locally-based MS SQL Server for use with the WPF application utilizing Entity Framework and a generic DAL
  - Researched, implemented, and tested several Bayer-format image demosaicking techniques using MATLAB

State University of New York at Fredonia
Teacher Assistant and Lab Proctorship

- Aide professors in giving meaningful feedback to students in the entry level coursework in the department through face-to-face code reviews and office hours
- Be available to profess classes on an as-needed basis
- Hold responsibility for the operation of the Computer Science Department computer lab
- Aide students in the completion of coursework or other technology related questions or problems

ACTIVITIES:

Computer Science Club - SUNY Fredonia
President, Spring-Fall 2017

- Make executive decisions and hold all responsibility for the Computer Science Club
- Establish the club as a learning resource for students through facilitation of student and faculty based talks and other activities to engage students in computer science as a discipline
- Organize and host technology workshops for students to learn new skills beyond the base curriculum

ACM Competitive Coding Competitions
Team Member, Spring-Fall 2017

- Practice problem solving under significant pressures as well as working and collaborating in a team based environment