

Erik A. Schweller

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SUMMARY

Mr. Schweller is an omnivorous software developer who has consistently demonstrated dependability and quality in his work. He has earned a Master of Science degree in Computer Science, and possesses a wide range of experiences and skills.

EXPERIENCE

Software Development Consultant

Mar. 2009 - Present Objexx Engineering, Inc. Needham, MA
Developed engineering software using Python, QT and the BOOST libraries to rapidly create complex and responsive applications.

- Designed and implemented graphical user interface elements in PyQt for scientific plotting, unit system management, and data summaries.
- Converted a Fortran-based scientific application to save directly to the HDF5 file format.
- Integrated the matplotlib plotting library into a scientific PyQt-based application.
- Ported an aging 3MB+ Fortran code base to C++ using a collection of automated tools and regular expressions and developed standalone scripts to simplify future conversion work.

Software Development Consultant

Mar. 2009 - Present Olav & Co., Inc. Hopkinton, MA
Maintained C DLLs and associated requirements for database migration tools.

- Updated a LZW-like compression routine for TIDBLOB extraction to detect failed codes and recover gracefully.
- Reviewed SQL specifications and corresponding code.

Software Developer

May. 2008 - Dec. 2008 Menlo Innovations, Inc. Ann Arbor, MI
Supported multiple projects for various clients of Menlo Innovations while working in an Agile Development environment employing Extreme Programming practices.

- Contributed in a large team environment to the development of a JAVA-based consumer application controlling a flow cytometer and sample collection robotic arm.
- Supported a collection of SharePoint sites used by multiple businesses in the automotive industry and provided scripts for simplifying clients' operations.
- Collaborated on a GUI-driven ACCESS application for tracking patient medical information.

Graduate Assistant

Jan. 2007 - Dec. 2008 Eastern Michigan University Ypsilanti, MI
Provided a variety of roles for a project housed at EMU supporting the State of Michigan's Community Mental Health programs.

- Automated generation of reports, used by the State of Michigan to track the effectiveness of mental health care, using Python, COM Objects, and SPSS resulting in significant improvement in the reporting process, reduced the time required to generate reports greater than 90%, and created more informative and useful documents.
- Prepared case data for over 10,000 youths for semi-annual state-wide meetings.
- Provided support in best practices, and assisted with technical questions and troubleshooting of the CAFAS mental health assessment software.
- Taught monthly, day-long software trainings for the CAFAS assessment software to groups of mental health clinicians.

Project Consultant

Aug. 2006 - Dec. 2006 Functional Assessment Systems Ann Arbor, MI

Worked with a psychological assessment company to bring a failing software product back on track.

- Composed multiple software requirement specifications.
- Mediated communication between client and developers.
- Managed bug tracking and regression testing of client's products.

Space Grant Intern

Jun. 2005 - Aug. 2005 NASA - Jet Propulsion Laboratory Pasadena, CA

Successfully completed internship projects, focused on automatic, nightly regression testing of Mars rover navigation software.

- Developed a system using Expect for automated regression testing of autonomous navigation software on VxWorks targets.
- Lead a seminar on the regression testing system for NASA Jet Propulsion Laboratory's CLARAty group.
- Implemented unit tests with CPPUnit for autonomous navigation software modules.

EDUCATION

Eastern Michigan University, Ypsilanti MI

M.S., **Computer Science**

Thesis: Automatic Text Summarization
for Special Education

Graduation Date: Dec 2008

GPA: 3.97/4.0

University of Idaho, Moscow ID

B.S., **Computer Science**

Minor in Mathematics

Graduation Date: May 2006

GPA: 3.97/4.0

Noted Course Work

- Developed a Perl-based text summarization utility as an aid for reading comprehension. Resulting method, described in Master's thesis "Automatic Text Summarization for Special Education," is more computationally efficient than leading research in the field, while producing comparable results.
- Designed and implemented an autonomous, stack-based navigation system in PIC assembler.
- Developed an easily maintainable web-based order placement system that adheres to XHTML standards, dynamically populates menu content from client files, and uses a MySQL database.

Honors and Activities

Summa cum Laude Graduate of the University of Idaho	2006
Computer Science Assistance Center Tutor	2006
ECE 101 Teaching Assistant	2006
Tau Beta Pi Engineering Honor Society	2005 - 2006
North American Nature Photography Association	2005 - 2006
Idaho Space Grant Consortium Intern at JPL	2005
President of Association for Computing Machinery (ACM), Local Chapter	2004 - 2005
McNair Scholar	2004
Honors Program Certificate, University of Idaho	2002 - 2006
V.P. of Marketing and Communications of U of I Residence Hall Association	2003 - 2004

COMPUTER SKILLS/CERTIFICATIONS

Languages: Python, Perl, C; Experience with C++, C#, Expect, Fortran 95, Java, MATLAB, PHP, and SQL

Toolkits/Packages: HDF5, PyQt, matplotlib

Certifications: CompTIA A+, CompTIA Network+, Cisco Certified Network Associate (expired)