

# Micah Veilleux

Field Engineer, Software

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**EDUCATION** Graduate GPA: 3.6, Undergraduate GPA: 3.0

**M.S. in Applied Physics and Computer Science** — Christopher Newport University, Dec. 2010

Thesis: *The Effect of Non-Flat Cathode Plane Surfaces in Drift Chambers of the GlueX Experiment.*

**B.A. with Honors in Physics** — Clark University, 2006

Thesis: *Statistical and Dynamical Properties of a Vibrated Granular Polymer.*

## EXPERIENCE

**Field Engineer, Software**

**Ion Beam Applications**

**Feb. 2011 – present**

Maintain, operate, and upgrade a proton therapy site, focusing on software and IT aspects.

- Certified operator, with experience debugging all common issues.
- Played a major role in implementing, testing, and debugging a PTS software upgrade from v5.1.3 to r6.4.3.
- Tested and reconfigured communication settings between the OIS, VeriSuite, and Asterope (MID 14897).
- Experience maintaining equipment such as the FS, RM, PPS, DIDs, PCU/TCU, EUs, etc.
- Produced a tool which plots cyclotron parameters and sends alerts when issues are detected.
- Perform regular database and system administration.
- Support engineers by creating scripts and clear documentation to simplify recovery from software issues.

**Research Assistant Thomas Jefferson National Accelerator Facility Aug. 2007 – Dec. 2010**

Jefferson Lab required precise measurements of a particle detector's (drift chamber's) cathode planes, and corresponding research to estimate one aspect of the detector's accuracy.

- Automated a flatness measurement system by developing motion-control software to guide a sensor and user-friendly data analysis software to produce plots and statistics.
- Wrote technical documents — produced a user's guide, software documentation, and reports.
- Studied the performance of several particle detectors using computer simulations, employing data analysis techniques and problem solving skills as necessary.
- Engaged in three major nuclear physics experiments by coordinating with team members to follow a data collection plan, monitor and troubleshoot equipment, and document our actions.

**Research Assistant**

**Clark University Complex Matter Lab**

**June 2005 – May 2006**

The Complex Matter Lab examined macroscopic granular polymers (beaded chains).

- Developed image analysis software in IDL to collect and process data, and generate plots.
- Prepared a report on the behavior of granular polymers.

## HONORS

- Won \$600 second prize at the *2010 Jefferson Lab Users Group Meeting* poster competition.
- Presented "The GlueX Experiment at Jefferson Lab" at the American Physical Society's *2009 Canada-America-Mexico Graduate Student Physics Conference* in Acapulco, Mexico.

## COMPUTER SKILLS

C/C++, Java, IDL, R (statistical programming language), ROOT (C++ data analysis library), shell scripting, Linux/Unix administration, L<sup>A</sup>T<sub>E</sub>X, MS Office, XHTML/CSS, Oracle DB admin.

Comfortable in Linux, Windows, and Macintosh environments.

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Available for relocation to Knoxville, TN.

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