# Seth Berl

105 William Richmond – Williamsburg, Virginia 23185 | United States Citizen | DOB: 5/30/92
(757) 291-9530 • sberl002@odu.edu • seth@sethberl.com • www.sethberl.com

**Objective:** *Contribute my multidisciplinary knowledge and experiences toward technological innovations.*

## Education

**University of Virginia** — **Charlottesville, Virginia**
*Doctor of Philosophy (PhD) in Atomic Physics* — *August 2015–2020*

**Old Dominion University – Honors College, Governor's Technology Award** — **Norfolk, Virginia**
*Bachelor of Science in Physics with a Mathematics Minor* — *2010–2014*
*Bachelor of Science in Electrical Engineering*
*NCAA Tennis Team Manager – President, Club Tennis – Sport Club Executive Board*

**Governor's School for Science and Technology – Engineering** — **Hampton, Virginia**
*Accelerated High School for Gifted Science and Math Students – College Course Credits* — *2008–2010*

## Employment and Research

**Space Systems/Loral** — **Palo Alto, California**
*Systems Engineer – Satellite Communications* — *2014–Present*

**Governor's School for Science and Technology** — **Hampton, Virginia**
*Professor, Research Methodology & Engineering Ethics* — *2014–Present*

**Christopher Newport University** — **Newport News, Virginia**
*Assistant Tennis Coach, NCAA Men's Tennis* — *2014–Present*

**Smartec, LLC** — **Williamsburg, Virginia**
*Owner, Technology Consulting Firm* — *2014–Present*

**Stony Brook University Physics Department – Metcalf Group** — **Stony Brook, New York**
*Optical Forces from Adiabatic Rapid Passage and Bichromatic Light* — *2013*

**Old Dominion University Physics Department** — **Norfolk, Virginia**
*Second Order Correlation Function for Quasi One-Dimensional Anderson Localization* — *2012–2014*
Conference Presentation: 2012 Frontiers in Optics – Optical Society of America
*Thesis: Cosmic Ray Tracking and Calibration of Jefferson Lab CLAS12 Region II Drift Chamber* — *2010–2012*
*Nuclear Magnetic Resonance RF Software* — *2012–2013*
*Physics Teaching Fellow* — *2012–2014*

**Old Dominion University Electrical and Computer Engineering Department** — **Norfolk, Virginia**
*Thesis: Design of a Multicharged Ion Transport Line and Diagnostic System* — *2013–2014*
*Microelectronics Semiconductor Device Design & Fabrication* — *2013–2014*
*Three Dimensional Model Printer Construction for Use with Conducting Materials* — *2011*

**National Aeronautics and Space Administration (NASA)** — **Hampton, Virginia**
*National Lightning Detection Network Data Processing* — *2011*
*Infrasonic Sensor Array Measurement System – Langley Aerospace Research Student Scholars (LARSS)* — *2010*
*Soluble Imide Polymer Materials Processing* — *2008–2010*

## Qualifications

**Independent Research, Development, Prototyping, Quality Assurance, and Manufacturing**:
*Radio Frequency Systems Design, Analysis, Simulations, & Testing*
*Optical Laser Systems (Opto-Electronic RF, Photodetectors, & Optical Fiber)*
*Data Acquisition, Laboratory Instrumentation, Tools, & High Vacuum Systems*
*Polymer Synthesis & Chemical Analysis (Thermoanalytics, Chromatography, & Spectroscopy)*
*Technical Writing, Design Review, and Effective Verbal & Written Communication*
*Advancement & Commercialization of Innovations, Budget & Cost Analysis, ROI Projections, & Management*
*Easily Trainable & Strong Collaborative Skills for a Team Environment*

**Advanced Computer Hardware, Software, & Networking Knowledge**:
*Operating Systems:* Microsoft Windows, Linux and UNIX Systems, Macintosh, and VxWorks
*Programming Languages:* C(++), Python, Perl, LabVIEW, VHDL, HTML, PHP, SQL, and LaTeX
*Software:* Matlab, Mathematica, AutoCAD, Inventor, Microsoft Office, Adobe, and Wireshark

**Professional Organizations:** *American Physical Society (APS) – Divisions of Nuclear, Laser, Atomic, Molecular, and Optical Physics • Institute of Electrical and Electronics Engineers (IEEE) • Optical Society of America (OSA) • Sigma Pi Sigma – Physics Honor Society*

**Musician:** *Guitar, Saxophone, Piano/Keyboard, & Drums – Instructor, Concert and Marching Bands*

**Patent:** *Pool Skimmer Device – # 2004/0245,789*