

Lucas Shadler

Software Engineer and Scientist

5 Greendale Drive
Rochester NY,
USA
☎ +1 (585) 766 7886
✉ lxs2208@rit.edu
🌐 lukeshadler.tech

Objective: To provide a unique approach and thought process to original and effective solutions.

Education

2013–2017 **B.S. Physics**, *Rochester Institute of Technology*, Rochester, NY, 3.9 GPA.
Minors: Computer Science, Electrical Engineering, Mathematics

Experience

- July 2017 – Present **Software Developer**, *Solü Technology Partners*, Rochester, NY.
Working as part of a Scrum team to produce new and innovative software solutions. Full stack development, on the frontend with AngularJS 2 and backend with the Spring framework to create a fully integrated client-facing application.
- Sept 2016 – Dec 2016 **Research and Development Engineer (Co-op)**, *WiTricity Corporation*, Watertown, MA.
Developed auxiliary systems to aid in the safety of wireless power transfer. Prototyped embedded data acquisition systems, with firmware produced in C, visualized in Python.
- Summer 2016 **Improving the Stochastic Template Bank Algorithm for aLIGO**, *LIGO*, Pasadena, CA.
Developed an improved Markov Chain Monte Carlo method of analyzing Gravitational Wave data. Developed in C with OpenMP for parallel computing.
- Fall 2014 – Summer 2015 **Optimization of MINERvA Proton Selection Algorithm**, *FermiLab*, Chicago, IL.
Wrote code in C++ to calculate the energy of incoming neutrinos in a Neutral-Current Elastic reaction within the MINERvA detector at the Fermilab.
- 2013 – 2015 **Feeding and Feedback in Active Galactic Nuclei**, *RIT*, Rochester, NY.
Ran three-dimensional morpho-kinematical simulations aimed at confirming and analyzing the anticipated gas kinematics of active galactic nuclei, developed in Java.

Qualifications

Proficient Languages	C, C++, Python, Java, MIPS, MySQL	Technical Applications	MATLAB, LabVIEW, LaTeX, CAD, PCB Design, Mathematica
Basic Languages	HTML, CSS, Arduino, Scheme, Javascript, Typescript	Programming Subfields	Parallel Computing, Machine Learning, Big Data, AngularJS, ReactJS, Spring
Misc. Software	Adobe Photoshop, Movie Maker, Microsoft Office	Misc. Skills	Digital Logic, Communication, Organization, Leadership

Relevant Coursework

- **Computer Science:** Mechanics of Programming, Computer Science Theory, Concepts of Computer Systems, Languages, Data Structures and Algorithms, Databases
- **Mathematics:** Multivariable Calculus, Probability and Statistics, Differential Equations, Linear Algebra (I,II), Numerical Linear Algebra
- **Physics:** Electricity and Magnetism, Classical Mechanics, Statistical Mechanics, Quantum Mechanics, Solid State Physics, Physical Optics
- **Electrical Engineering:** Electronic Measurements, Circuits (AC,DC), Electronics I