

Christopher M. Pierce

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EDUCATION

CORNELL UNIVERSITY

PhD in Physics
Expected 2022 | Ithaca, NY

WORCESTER POLYTECHNIC INSTITUTE

BS in Physics, High Distinction
Grad. May 2017 | Worcester, MA
GPA: 3.8 / 4.00

EXETER HIGH SCHOOL

Grad. May 2013 | Exeter, NH

PROGRAMMING

Skilled
C++ • C • Python • \LaTeX • BASH

At least 1000 lines:
HTML/CSS • Matlab/Octave • Fortran
Assembly • OpenGL • JavaScript

CERTIFICATION

Entertainment Rigging
NSC Professional CPR
NSC Emergency Medical Responder
Motion Picture Operator (Massachusetts)
ARRL Examiner
Amateur Extra Radio Operator

HONORS AND AWARDS

2017 Provost MQP Award
2017 Sigma Xi Honor Society
2016 Undergraduate Research Fellow
2015 Undergraduate Research Fellow
2015 Dearborn Scholarship
2015 Tau Beta Pi Honor Society
2014 Undergraduate Research Fellow
2014 Charles O. Thompson Scholarship
2013 Medwin Honors Quartet, Cellist
2009 Eagle Scout

KEYWORDS

Linux • Windows • Mac • PBS • SLURM
MPI • HPC • PETSc • SLEPc • Lapack
ATLAS • BLAS • FEM • GPGPU
System Administration • Vim • GCC • Git
Valgrind • Virtualization • Numerical Methods

RESEARCH EXPERIENCE

CENTER FOR BRIGHT BEAMS

Research Assistant
2017 – Present | Ithaca, NY

- Studying emittance growth in accelerator beamlines
- Manage high performance computer cluster

CENTER FOR COMPUTATIONAL NANOSCIENCE

Research Assistant
2013 – 2017 | Worcester, MA

- Invented new algorithms for implementing the Finite Element Method
- Created library for simulation of nanoscale systems (>40,000 lines, c++)
- Designed and built teraFLOPS scale high performance computer cluster

WPI DEPARTMENT OF ARTS AND SCIENCES

Major Qualifying Project
2014 – 2017 | Worcester, MA

- Predicted removal of accidental degeneracy in cubic quantum wells
- Produced theoretical energy levels of GaAs/Ga_{1-x}Al_xAs quantum dots

TEACHING EXPERIENCE

CORNELL DEPARTMENT OF PHYSICS

Teaching Assistant
2017 – Present

- Fundamentals of Physics I

WPI DEPARTMENT OF PHYSICS

Teaching Assistant
2014 – 2016

- Advanced Electromagnetism | Graduate | Jackson
- Quantum Mechanics I | Undergraduate | Griffiths

LEADERSHIP EXPERIENCE

BOSTON ATHLETICS ASSOCIATION

Technical Infrastructure Committee Member, Boston Marathon
2015 – Present

WPI LENS AND LIGHTS

Technical Director
2013 – 2017

- Responsible for \$1,000,000 inventory of professional production equipment
- Led creation of and continue to oversee new equipment maintenance system
- Worked with internationally touring acts to coordinate technical requirements
- Enforced safety guidelines for entertainment rigging
- A1 or consultant on hundreds of events