

Nicholas P. Quirk

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Undergraduate Physics Major and Researcher

15 Elm Street
Plaistow, NH 03865

EDUCATION

Georgetown University

Washington, DC

Graduation: May 2017

Degrees Expected: B.S. in Physics

GPA: 3.75 Major GPA: 3.85

Timberlane High School

Plaistow, NH

Graduated: June 2013

Valedictorian (1 of 380)

COURSEWORK

Quantum Mechanics

Electricity & Magnetism

Statistical Physics

Computational Physics

Experimental Physics (including
rigorous lab-based assignments)

Calculus

Linear Algebra

Differential Equations

Proofs/Problem Solving

Computer Science I & 2 (C++)

SKILLS

Polished and precise writing skills

Skilled and professional presenter

Intermediate Proficiency in C++/C

Functional Proficiency in Python,

MATLAB, Linux, Mathematica,

L^AT_EX, LabVIEW, Origin, Windows

French (Intermediate Proficiency)

Spanish (Intermediate Proficiency)

LINKS

<https://nquirk.github.io/timelinesite>

<https://linkedin.com/nquirk>

<https://cds.cern.ch/record/2114378>

RESEARCH EXPERIENCE

California Institute of Technology

Pasadena, CA Summer 2016

Caltech SURF Fellowship for Undergraduate Research

Designed a GPU-accelerated spectral readout system for *SuperSpec*, a novel on-chip microwave spectrometer in development for the microwave band. Dr. Charles M. Bradford, Caltech Sub-mm/IR Astronomy

CERN, The European Organization for Nuclear Research

Geneva, Switzerland Sept-Dec 2015

Undergraduate Research Assistant, University of Michigan Research Semester at CERN Program

Performed radiation analysis of the read-out electronics for the new semiconductor tracker layer of the ATLAS Detector Phase-II Upgrade. Dr. Richard Teuscher, The University of Toronto. Internal note published to CERN server at: ATL-COM-UPGRADE-2016-004

Georgetown University Micro and Nano Technology Lab

Washington, DC Jan 2014-Current

Research Assistant, Barbara Lab

Fabricate and analyze nano-scale electronics on mono-layer graphene substrates. Photolithography, metal sputtering, SEM use, wire-bonding, low-temp. electrical analysis, etc.

ADDITIONAL EXPERIENCE

Georgetown University Department of Physics

Teaching Assistant Spring 2015, 2016

Led office hour review sessions and graded problem sets for first-year physics majors. Professor Edward Van Keuren.

Massachusetts Audubon Society-Joppa Flats Education Center

Newburyport, MA Summer 2014

Summer Education Intern. Led a childrens' touch-tank program and coordinated science activities.

Georgetown University Philosophy Department

Office Assistant. Work-study. Jan 2014-May 2015.

INTERESTS

Georgetown Symphonic Orchestra Principal Bassist

Perform and record original music in Rock/RnB group

Learning and practicing foreign languages