Noah Paladino

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Education

BACHELOR OF SCIENCE | EXPECTED MAY 2021 | RUTGERS UNIVERSITY HONORS COLLEGE

- **Location:** New Brunswick, NJ
- **Major:** Physics (Professional Option)
- **Minor:** Math
- **GPA:** 4.0
- **Related coursework:** Introductory and intermediate level courses on classical mechanics, classical electromagnetism, special relativity, quantum mechanics, and various topics in modern physics, as well as multivariable calculus, differential equations, and advanced topics in calculus

HIGH SCHOOL DIPLOMA | JUNE 2017 | MIDDLESEX COUNTY ACADEMY FOR SCIENCE, MATHEMATICS, AND ENGINEERING TECHNOLOGIES

- **Location:** Edison, NJ
- **Track:** Electrical and Computer Engineering
- **Rank:** Top 5 in graduating class
- **Related coursework:** Four years of electrical and computer engineering coursework culminating in a capstone project

Research Experience

RUTGERS PHYSICS | FEBRUARY 2018 - PRESENT

- Working with Professor Stephen Schnetzer analyzing data from the CMS experiment, from proton-proton collisions at the Large Hadron Collider at CERN
- Searching for evidence of the production of bottom-type vector-like quarks using C++ and Python in conjunction with the ROOT data analysis toolkit
- Developed more efficient build and deployment scripts to automate submission of the analysis executables to the HTCondor workload manager

RUTGERS PHYSICS | NOVEMBER 2017 - PRESENT

- Working with Professor Jacquelyn Noronha-Hostler simulating heavy ion collisions that result in a quark-gluon plasma, with a focus on the hydrodynamics
- Focus on improving the computational efficiency of the simulation

RUTGERS WIRELESS INFORMATION NETWORK LABORATORY (WINLAB) | SUMMER 2017

- Developed an effective means of safely taking control of WiFi-enabled drones to prevent them from posing a public safety hazard with a team of students

RUTGERS WIRELESS INFORMATION NETWORK LABORATORY (WINLAB) | SUMMER 2016

- Collaborated with a small group of students to design a drone capable of pinpointing sources of wireless interference, specifically in the cellular region of the spectrum

Work Experience

HELP DESK | RUTGERS OLD QUEENS TECHNICAL SUPPORT | SUMMER 2017

- Provided general computer support for the Rutgers Old Queens campus administrative buildings
- Performed maintenance work for the network
- Managed safe disposal of hard drives containing sensitive information

INTERN | RUTGERS OLD QUEENS TECHNICAL SUPPORT | SUMMER 2014, 2015

- Gained experience with computer networking
- Managed Linux servers
- Repaired backup servers

Skills

PROGRAMMING

- C++ (including with ROOT), C, Python, Mathematica, Assembly (MPASM), Java, C#, JavaScript, HTML/CSS, PHP, LaTeX

LINUX

- Server Administration, Shell Scripting, Use of Cluster-Based High-Performance Computing, Metal as a Service (MAAS) Deployment

HARDWARE

- Digital Logic Design, DC Circuitry, Microcontrollers

LEADERSHIP

- **Webmaster** (2018-Present) for the Rutgers University Chapter of the Society of Physics Students
- **Webmaster** (2018-Present) for the Rutgers Astronomical Society
- **Outreach Coordinator** (2017-2018) for the Speaker Series team at the Space Technology Association of Rutgers

Awards

RUTGERS PRESIDENTIAL SCHOLARSHIP | RUTGERS UNIVERSITY | 2017-2021

- Awarded the highest level of merit scholarship offered by Rutgers

DEAN'S LIST | RUTGERS UNIVERSITY | FALL 2017 - PRESENT

- Made the dean's list each semester

TRIG STAR STATE CHAMPION | NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS | 2016, 2017

- Finished first in New Jersey in both the 2016 and 2017 Trig Star competitions

HIGH SCHOOL SCIENCE LEAGUE | NEW JERSEY SCIENCE LEAGUE | 2016, 2017

- Member of the 2016 school team for physics that placed second in the state and the team for AP environmental science that placed first in 2017

Awards (Continued)

BEST DEVELOPER TOOL | HACKBCA | 2016

- Won best developer tool for an application that let users run Python code on a Raspberry Pi from a web-based code editor

BEST FIREFOX OS APP | HACKBCA | 2015

- Won best Firefox OS App for a news feed application designed to provide users with personalized information from around the web

INDUCTEE & CHAPTER TREASURER | NATIONAL HONOR SOCIETY | 2016

- Inducted in 2016 and served as Treasurer of high school's chapter of the National Honor Society

SCHOLAR-ATHLETE | NEW JERSEY STATE INTERSCHOLASTIC ATHLETIC ASSOCIATION | 2017

- Recognized as a scholar-athlete for both the NJSIAA and the GMC conference

Projects

DIGITAL GUITAR EFFECTS PEDAL | 2018-PRESENT

- An easily reprogrammable, 16-bit microcontroller-based guitar effects pedal designed with new, unique note tracking techniques for complex effects with low latency

VICTR | 2016-2017

- A voice-activated assistant for racquetball that provides a projectable scoreboard and game management system with live score updates via an Android application

KALDERSVELL OS | 2015-2017

- A Linux-based operating system and companion Windows application for Raspberry Pi that creates a simple way for students to remotely write and run their Python code, obtainable from http://www.kaldersvell.org/