

# Nikodem Grzesiak

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3411 Chestnut Street, Apt #402, Philadelphia, PA-19104, U.S.

## EDUCATION

University of Pennsylvania, School of Arts and Sciences

Completed B.A. and M.S. in Physics in 3 years

Concentration: *Physical Theory and Experimental Techniques*

Physics GPA: 3.86; M.S. GPA: 3.93

Philadelphia, PA

2015 - 2018

## RELEVANT COURSEWORK

Quantum Engineering, Modern Optics & Spectroscopy, Quantum Mechanics I & II, E&M I & II, Thermodynamics, Computational Neuroscience, Programming Languages (Python, Java, C++), Laboratory Electronics, Stat. & Probability Th.

## EXPERIENCE

### European Organization for Nuclear Research (CERN)

Research Assistant

Geneva, Switzerland; Summer 2017

Philadelphia, U.S.; Dec 2016 – Oct 2017

- Lead analysis of various computational approaches to ATLAS Level 1 trigger algorithm, to increase trigger efficiency for jets by analysis and visualization of data using UNIX environment and ROOT programming language (C++ based). Research findings used by Ph.D. candidate from UPenn. Focus on future upgrades to ATLAS detector trigger system: more granular calorimeters will provide additional performance for event identification and data acquisition, but algorithms have not yet been optimized
- Increased the expected efficiency by 5% - 100's of GB's of more finely selected future data
- Collaborated with and presented analysis of primary data to ATLAS Data Acquisition Team

### Philip Morris International R&D

Research Analyst

Neuchâtel, Switzerland

Summer 2016

- Initiated systematic, scientific literature search on multi-faceted relationship between Parkinson's Disease and nicotine, which required reading and analyzing over 200 scientific publications
- Wrote a comprehensive PD-nicotine literature review for internal company purposes. Based upon that research more narrowly focused article has been published online at bioRxiv (DOI: <https://doi.org/10.1101/161240>)
- Collaborated with statisticians on analysis of the company research data for submission to FDA
- Presented research findings and conclusions to Product Assessment and Scientific Substantiation Office

### Philip Morris International

Marketing & Sales Intern

Lausanne, Switzerland

Summer 2014

- Developed, translated and implemented e-learning modules to internal training app (EEMA 360); the app connects salesforce and provides lessons to retail store managers and sales representatives on marketing, managing store layout, best company practices, human resources, and many others
- Updated international versions of EEMA 360 and coordinated roll out in South Africa, Turkey and South East Europe, which required effective communication and coordination with international offices

## LEADERSHIP

### UPenn Class Board 2019

Freshman VP of External Affairs

Philadelphia, U.S.

Oct. 2015 – Oct. 2016

- Collaborated to organize on-campus class integration events such as Econ Scream, Skimmerfest, Holi and others
- Raised \$2000 external sponsorship for Class Board projects such as T-Shirt giveaways and others

### Penn Innovation Conference (PIC)

Sponsorship Chair

Philadelphia, U.S.

Feb. 2016 – Present

- Lead small team responsible for sponsorship packet and maintaining relationships with partners
- Negotiated terms with sponsors; Successfully raised over \$5,000 from on-campus and corporate sources
- Successfully organized conference with 14 speakers for 150 attendees

## PERSONAL

- Manage \$25k crypto assets portfolio using technical analysis started with \$2k initial investment in March 2017
- Top 10 in several Polish National Chess Championships for Juniors; FIDE Rating: 1702
- Rotary Youth Exchange 2012-2013 to U.S.; Lived with 4 different host families for 1 year total in Sterling, IL

## SKILLS AND INTERESTS

- Programming: Mathematica, Python, C++, ROOT, Java, NetLogo, MATLAB, Excel
- Languages: Polish (Native); English (Full Proficiency); French (Full Proficiency); Spanish (Intermediate)
- Interests: Water Sports: Scuba Diving, Sailing, Windsurfing; Drums, Tennis, Skiing, Chess; Quantum Information Science, Machine Learning, Neuroscience, Blockchain