# Antonius Torode

# Curriculum vitae

#### Education

- 2015–2018 **B.S., Physics, Mathematics (Duel Majors)**, *Michigan State University*, East Lansing MI, *GPA 3.76*.

  Graduated with an undergraduate physics degree and mathematics degree.
- 2011–2014 **Undergraduate Studies**, *Oakland Community College*, *GPA 3.7*.

  General studies as well as math/sciences up to and including Calculus III, Differential Equations, Engineering Physics II and General Chemistry II (4.0 in all).
- 2008–2011 **High School**, *Clarkston High School*, Clarkston MI, *GPA 4.0 (ACT standards)*. AP Physics, AP Calculus, AP Computer Sciences, CSMTech (3 year advanced math, science and technology program).

# Experience

- Summer 2018 LabVIEW Programmer, MICHIGAN STATE UNIVERSITY, East Lansing MI.
  - Programming of experimental data acquisition systems for an advanced lab class at MSU.
  - Created accurate documentation for future developers and users of the LabVIEW programs.
  - 2017–2018 Undergraduate Research Assistant, NATIONAL SUPERCONDUCTING CYCLOTRON LABORATORY, East Lansing MI.
    - I worked in experimental nuclear astrophysics.
    - My primary focus was with scintillator detectors and experimental setups to better understand nucleosynthesis.
    - I also performed calculations and simulations for determining existing detector properties and new detector properties.
  - 2016–2018 P-A Computing Assistant, MICHIGAN STATE UNIVERSITY, East Lansing MI.
    - I worked to manage and maintain the computers and networks for multiple departments at MSU, including Physics & Astronomy, Phisiology, and Microbiology & Molecular Genetics
    - My responsibilities included fixing any common or difficult problems that may arise while applying my knowledge to maintain or improve efficiency within the department.
- Summer 2016 Physics Teaching Assistant, MICHIGAN STATE UNIVERSITY, East Lansing MI.
  - A weekly tutor and an exam proctor for PHY 232C, an online course taught at Michigan State University.
  - In charge of assisting students in the understanding of concepts and problems via both an online forum and in person.

- 2013–2015 CRLA Certified Math, Physics and Chemistry Tutor, OAKLAND COMMUNITY COLLEGE, Auburn Hills MI.
  - Mathematics lab tutor for fundamental concepts and ideas including but not limited to mathematics, physics and chemistry.
- Summer 2013 Condensed Matter Physics Research, OAKLAND UNIVERSITY, Auburn Hills Ml.
  - Extensively studied Raman spectroscopy and graphite/graphene under high pressures.
  - Performed a Raman spectroscopy experiment on graphene using a diamond anvil cell to achieve high pressures.
  - Personally designed and set up resistivity experiments to confirm findings.
  - Presented research in a professional and comprehensive manner in front of an audience.
  - 2011–2013 Data Research Analyst, CLRS, INC., Southfield MI.
    - Performed Data analysis of different financial markets including the General Motors commercial car market.
    - Learned and filled in for other positions when needed, including management duties.
    - Performed analysis of economic markets and businesses.
    - In depth research of Las Vegas casino populations.
    - Analyzed business functionality and efficiency and improved upon them by shortening data verification process.
- 2010-Present d0sag3-Films, Home Business.
  - o d0sag3-Films is a video editing and graphic design title I created.
  - o Paid projects for Detroit In Focus but also many personal projects.
  - Many of my projects can be viewed at https://www.facebook.com/d0sag3 (d0sag3 is spelled with a zero).

#### Peer Reviewed Publications

- Jan 2018 "Software Development to Determine the Optimal Parameters of a Tape Transport System." Student Journal of Physics International Version Vol. 7. No. 1. Jan-March 2018 Indian Association of Physics Teachers.
- Jun 2017 "Exploration of the Quantum Casimir Effect." Student Journal of Physics International Version Vol. 6. No. 2. April-June 2017 Indian Association of Physics Teachers.

# Other Publications and Projects

- 2018 "Multiple Integrated Applications (MIA)." Program created for further development of application design. Contains mathematical functions, encryption algorithms, windows key code simulations, a comprehensive workout generation system, and more.
- Oct 2017 "Characterizing a Tape Station and Beta Detector For Radioactive Isotope Beam Experiments." Conference Poster presented at the Fall Meeting of the Division of Nuclear Physics of the American Physical Society
  - 2017 "Generations of Nuclear Activity (GINA)." Program created for performing nuclear decay calculations for a new radioactive transport system at the NSCL.
  - 2017 "Local Operations Listing Agent (LOLA)." Program created for improved efficiency and computer database management at MSU.

- May 2017 "The Antonius Cookbook." Self Published: Free culinary cookbook download. https://msu.edu/~torodean/ACookbook.html
- Nov 2016 "Antonius' Handbook." Comprehensive reference of useful formulas, constants, units and definitions. Self Published: Free book download for current version. https://msu.edu/~torodean/AHandbook.html

#### Computer skills

Basic PHP, MAC OS

Intermediate Linux, JAVA, GIT, BASH, HTML, CSS, CAD, LATEX, C++, C#, Python, DS9, to Advanced Stellarium, OpenOffice products, Microsoft Office products, Microsoft Windows 2000/XP/Vista/7/8/10, Adobe Premiere Pro, Adobe Illustrator, Sony Vegas, Final Cut Studio, Adobe Photoshop, Adobe After Effects, Cygwin Terminal, Qt, GNU/GCC compilation, makefile programming, Computer Hardware and Support, LabVIEW

# Honors, Clubs, and Other Affiliations

- 2016-2018 Michigan State University Dean's List
  - 2017 Lawrence W. Hantel Endowed Fellowship Fund, in Memory of Professor Donald J. Montgomery
- 2016-2017 Regular Attendee of Physics, Astronomy, and Karate Clubs at Michigan State University
  - 2015 Member of the Phi Theta Kappa Honor Society
- 2011-2015 Oakland Community College Dean's List
  - 2010 Member of the National Junior Classical League

#### References

- 2015–2018 Artemis Spyrou, Associate Professor of Physics, National Superconducting Cyclotron Laboratory, Cyclotron, 640 S Shaw Ln, East Lansing, MI 48824, spyrou@nscl.msu.edu (517)-908-7141.

  Supervisor at NSCL.
- 2015–2018 **Esther V. V. Reed**, *MSU Information Technologist Departmental Support*, Biomed/Physical Science Building: 567 Wilson Road, Room 1209, East Lansing, MI 48824, reed@pa.msu.edu (517)-884-5469. Supervisor at Michigan State University.
- 2013–2015 Michael Robinson, OCC Faculty, 739 S Washington Ave, Royal Oak, MI 48067, mdrobins@oaklandcc.edu (248)-232-4438.
  Employer at Oakland Community College.
- 2011–2013 Mitch Kanaan, CLRS, inc. President/Owner, 29433 Southfield Road, Suite 106 Southfield, Michigan 48076, mkanaan@clrsinc.com (248)-760-5316. Employer at CLRS, Inc.