# Education

## Candidate for Baccalaureate of Sacred Theology 2016-2018

The Pontifical Gregorian University, Rome, Italy

## Master’s in Philosophy and Religion 2014-2016

University of Saint Mary of the Lake, Mundelein, IL – Magna Cum Laude

## Bachelor’s of Science in Physics 2010-2013

Georgia Institute of Technology, Atlanta, GA – Highest Honors

# Experience

## PDS Tech, Inc. – Assembly and Test Technician February 2021 – Present

13350 US Hwy 19 N, Clearwater, Florida, 33764, United States

* Contracted to Honeywell Aerospace ISC to work on Defense and Space Contracts
* Performed standard testing processes on a variety of equipment and recorded and analyzed results
* Worked on a high-tech slow-moving assembly line of precision instrumentation
* Worked with specialized machinery to fusion splice fiber optic cables
* Worked in a self-directed, teaming, and continuous improvement environment
* Relied on experience and judgment to plan and accomplish goals

## Grade Potential Tutoring – Independently Contracted Private Tutor September 2019 – Present

(888) 979-0171

* Worked with students in calculus and algebra courses at the high school level
* Developed and implemented a pedagogy with a focus on the gradual understanding, independence, and mastery of advanced topics

## Pinellas County Schools – Instructional Substitute Teacher April 2019 – October 2019

301 4TH Street SW, Largo, FL 33770

Supervisor: Melissa Hill (727)588-6261

* Trained in classroom management skills by Pinellas County
* Guest taught at Azalea Middle School, Seminole High School, Boca Ciega High School, Northeast High School, Pinellas Park High school, Largo High School, and Osceola Fundamental High School
* Guest taught such subjects as high school Physics, IB Chemistry, freshman English, Social Studies, Economics, English, and middle school Science

## Archdiocese of Atlanta – Seminarian May 2014 – January 2019

2401 Lake Park Drive SE Smyrna, GA 30080

Supervisor: Fr. Tri John-Bosco Nguyen (404)920-7460

* Served as Public Relations Liaison and Social Chairman for the Archdiocese of Atlanta Vocations Office (20,000+ people), maintained communication, advertised, promoted, and organized events
* Instructed and facilitated curriculum of RCIA and Foundations of Religious Education courses for primary, secondary, and higher education levels in the classroom, taught and interviewed fifth-grade students via livestreaming media, chaperoned retreats and field trips
* Pioneered round table discussions in current events in science and technology to inspire a philosophical insight of the role of technology today and its potential impact for the future
* Served as Chairman for Outreach to the Poor of the Peace & Justice/Gospel of Life Group at Mundelein Seminary where I advertised events, raised financial and volunteer support, collected essential items, organized distribution of collected items to those in need, coordinated events to pack food for emergency relief in areas around the globe.
* Developed, planned, organized, and implemented a 24-week religious education course for mentally disabled women
* Appeared as a featured speaker at Christ the Redeemer Catholic Church, Georgia Institute of Technology Catholic Center, St. Pius X Catholic Church and organized a four-part guest speaker series and Christ the Redeemer Catholic Church in Dawsonville, GA
* Optimized asset funding and reallocation for ongoing projects, budgeted supply costs, analyzed and developed factual data for specific information requests, supported fundraising efforts and financial contributions for a homeless housing project in Peru
* Ensured secure operations of facilities at St. Pius X Catholic Church biweekly and remedied grounds keeping issues, eliminating invasive species
* Developed and managed various electronic documents, and tracking systems related to scope of work, performed web-based research in support of assigned projects, utilizing Windows-based software
* Managed clerical staff, trained altar servers, performed onsite visits to the sick and homebound, conducted assignments, and performed self-initiated tasks as needed
* Performed essential tasks for the livelihood of disabled persons, held hospitality support positions for benefactors of University of Saint Mary of the Lake and The Pontifical Gregorian University, formed and led study and prayer groups at St. Pius X on assignment in 2014, provided mental and emotional support for those in need
* Assisted in the development and execution of a program providing dinner and food pantry for low-income families in Lake Zurich, IL
* Designated Member of a partnership with the Missionaries of Charity in Rome, Italy, to care for the needs of men in hospice care as well as team that led daily English-speaking pilgrimages to the station churches of Rome during Lent
* Fluent in Italian after a four-month accelerated immersion course, passing the Italian language proficiency examination, and taking graduate level theology courses in Italian in Rome, Italy

## Georgia Institute of Technology, Soft Condensed Matter Laboratory Research Assistant

## January 2012 – August 2012

North Avenue NW, Atlanta, GA 30332

Supervisor: Dr. Alberto Fernandez-Nieves

* Studied the effect of catenoid geometry on disclination lines and points in nematic liquid crystals through the use of polarized optical microscopy
* Performed technical writing and editing of briefings, annual reports, fact sheets, presentations, press releases, and publications
* Experience in a laboratory setting working with a variety of equipment, recording results, and analyzing those results
* Produced and maintained proper documentation of processes and methods of experiments
* Utilized tools, computers, and office equipment as required to complete job related tasks
* Complied with detailed instructions on all work applying policies and procedures
* Coordinated with pertinent support personnel to resolve equipment, software, and procedural issues or failures
* Utilized product and process knowledge to conduct high level troubleshooting
* Performed and completed varied tasks through knowledge-based experience, adhering to work instructions and applying policies and procedures

# Publications

P. W. Ellis, S. Huang, S. Klaneček, J. Vallamkondu, E. Dannemiller, M. Vernon, Y. Chang, P. M. Goldbart, and A. Fernandez-Nieves, Defect Transitions in Nematic Liquid-Crystal Capillary Bridges, Physical Review E 97, 040701(R) (2018).

Abstract:

We use experiment and computational modeling to understand the defect structure and director configuration in a nematic liquid crystal capillary bridge confined between two parallel plates. We find that tuning of the aspect ratio of the bridge drives a transition between a ring defect and a point defect. This transition exhibits hysteresis, due to the metastability of the point-defect structure. In addition, we see that the shape of the capillary-bridge surface determines whether the defect is hyperbolic or radial, with waist-like bridges containing hyperbolic defects and barrel-like bridges containing radial defects

# SKILLS

Certified IPC Specialist in IPC-A-610 Acceptability of Electronic Assemblies

Certified IPC Specialist in J-STD-001 Requirements for Soldered Electrical and Electronic Assemblies

Certified IPC Specialist in Space Applications Electronic Hardware Addendum to IPC J-STD-001

Certified by the American Red Cross for Basic Life Support for Healthcare Providers

Software: Microsoft Office Suite, Open Office, Adobe Photoshop

Programming: Matlab, VPython, C++

Platforms: Microsoft Windows XP/7, MacOS Mojave

Instrumentation: Spectrometer, voltmeter, ammeter

Data Collection

Experience in integrated circuitry

Experience in both theoretical and applied electronics that is based on a thorough grounding in circuit as well as device physics

# Volunteer Experience

Crisis Aid Pregnancy Centers

Frederick County 4-H Therapeutic Riding Program Assistant Instructor, Frederick, MD