

Quinn Christian Zacharias, Undergraduate Student

Environmental engineering Sciences, University of Florida

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Core Education

January 2018 - Present: *University of Florida*

- Environmental engineering sciences combined BS & ME
- 3.9 GPA

September 2015 - December 2017: *Florida State University*

- Associate of Arts
- 3.74 GPA through pre-engineering curriculum
- Studied at Panama Canal Campus in Fall 2016

August 2011 - May 2015: *Deland High School*

- 4.3 GPA
- Engineering Academy

Extra-curricular Education and Training

September 2018 – Present: *Howard T. Odum Center for Wetland: Water, Wetlands & Water sheds Seminar Series*

- Attend weekly seminars on doctoral and professional research

August 2018: *UF-IFAS Florida Master Naturalist Program: Environmental Interpretation*

- 24 hours of instruction on improving environmental interpretation ability
- Held at the Marine Discovery Center, New Smyrna, FL

August 2018: *Florida online boating course*

- 6 in depth units on boating

July 2018: *CPR and First Aid including AED training*

- 12 hours of training from University of Florida Health

Formal Work Positions

Spring 2018 – Present: *University of Florida Environmental Engineering Sciences department (Phase partitioning teaching assistant/grader)*

- Hold office hours
- Facilitate review sessions
- Grade homework and exams

July 2018: *Saving the Earth through Knowledge Conference (Counselor)*

- This conference provides educational enrichment for the brightest high school students in the state with an interest in pursuing an environmental based career. Presenters share cutting edge research and provide first-hand knowledge about their professions.
- Supervised conference attendees for the duration
- Created curriculum
- Guided hikes and kayak trips

August 2017 - December 2017: *Florida Department of Environmental Protection Petroleum Remediation Unit (Student Intern)*

- Researched innovative technology
- Assisted in reviewing contractor's work
- Shadowed different professionals in different sectors within the department

January 2016 - May 2016: *Florida A&M-Florida State University Environmental and Civil Engineering Laboratory (Lab technician and research assistant)*

- Assisting in experimentation on developing bioreactors for landfill leachates
- Competed in American Civil Engineering Society Southeastern Conference
- Prepping student labs

January 2015 - May 2015: *Florida Department of Transportation District 5 (Student Intern)*

- Final Project: design school parent pick up loop
- Shadowed different professionals from different sectors around the department
- Attended professional meeting
- Learned traffic analytics
- Watched AutoCAD Spec webinars

June 2015- August 2015: *3D Aviation – Aircraft Mechanic Services (Mechanical and Administrative Assistant)*

- Assisted mechanics in airplane repair
- Provided routine maintenance on all aircraft tools
- Established inventory system and data base to improve part storage

Volunteering

January 2010 – Present: *Museum of Art and Science (over 600 hours)*

- Summer camp counselor
- Educational outreach
- Guiding tours

January 2017 – May 2017: *Advocated for Everglades restoration reservoir in Senate bill 10*

- Organized students at senate hearings
- Organized students to speak with their representatives
- Lead on campus petition campaign

October 2016: *Smithsonian Tropical Research institution (Marine Station)*

- Installed an underwater camera

May 2011 – May 2015: *Marine Discovery Center*

- Summer camp counselor
- Assisted in conducting research
- Public outreach

Research Experience

Spring 2018- Present: *Everglades phosphorus standard case study*

- Received 3 credit hours of undergraduate research credit to investigate the Florida Everglades Phosphorus standard literature
- Composed a case study and public policy paper

May 2018 – September 2018: *Agricultural and Biological Engineering Hydrology Laboratory*

- 125 logged hours of volunteer service across two hydrology monitoring projects
- Research Question: Can regenerative stream conveyance be applied to Florida fluvial restoration? (Beville Creek in Gainesville FL)
 - Collected field data
 - Implement low cost sensors
 - Assisted in reviewing literature
- Research Question: Does tilling topsoil in Florida housing developments improve soil water retention and reduce run off? (On Top of the World Subdivision in Ocala, FL)
 - Install low cost hydrology sensors
- Mentor: Assistant Professor Dr. Eban Bean

January 2016 - May 2016: *Florida A&M-Florida State University Environmental and Civil Engineering Laboratory*

- Research Question: What is the optimal amount of time and biochemical oxygen Demand to process landfill waste from the Leon County Landfill with a bioreactor?
 - Assist in taking measurements
 - Review through literature
 - Mentor: Dr. Gang Chen, Professor at

September 2012 - May 2015: *Citizen science (Rose Bay, Florida)*

- Research Question: Was the restoration of Florida's Rose Bay successful.
 - Self-taught myself in Excel and water chemistry to analyze Volusia County water quality data before, during and after a 50-million-dollar restoration spanning 1991 through 2011. The analysis included over 10 different parameters.
 - Proved that the 50-million-dollar restoration was successful.
 - Published the findings on the front page of the Daytona Beach News Journal's Sunday paper which distributed to over 250,000 addresses.
 - Published findings in a series of lectures to different organizations including the Port Orange City Council, Daytona Beach Audubon Society, American Water Resources Association technical meeting, and a Council for the protection of environmental resources of Volusia and Flagler County.
 - Mentor: Louise Chapmen, Volusia county teacher on assignment

September 2009 – May 2011: *Citizen science (Rose Bay, Florida)*

- Research question: Is the population of *Melongena Sprucecreekensis* in Rose Bay, FL stable and how mobile are the individuals?
 - Conducted mark and recapture studies
 - Reviewed literature
 - Mentor: Louise Chapmen, Volusia county teacher on assignment
- Research Question: Within a Crown conch egg casing, what is the sequence of fertilization if there was multiple sperm contributors?
 - Collected egg casings and reared the embryos in the Marine Discovery Center, Volusia County
 - Counted the newly born crown conch larva and sorted into cryogenic tubes.
 - Mentor: Dr. Kenneth Hayes, Professor at the University of Hawaii

- Microsoft office: excel, word, and power point
- Visual Basic programming
- Minteq water chemistry modeling
- Basic understanding of ArcGIS and AutoCAD

License and Certifications

July 2018: *CPR and First Aid including AED*

September 2018: *Florida boating license*

Organizations, clubs and Professional Affiliations

December 2018 – Present: *Phi Kappa Phi Honors society*

- Nation's oldest, largest, and most selective honor Society for all Academic disciplines.
- Accepts only the top 7.5 percent in class rank of upperclassmen

January 2015 - Present: *American Water Resource Association*

- Annually attend multiple technical meetings
- Net work
- Stay updated with the Journal of the American Water Resources Association

January 2018 – May 2018: *Gator Salsa*

- Attend salsa classes several times a week
- Attend salsa socials

January 2015 – January 2017: *American Society of Civil Engineers*

- Attended monthly meetings
- Competed in Southeastern conference
 - Concrete canoe competition
 - Balsa wood bridge competition

Awards

2015, 2016, 2017, 2018: *Bright Futures Florida Medallion Scholars award*

- \$159.53 credit hour

2016, 2017, 2018: *Florida Federation of Garden Clubs College Scholarship*

- \$3000

2017: *National Garden Club Scholarship*

- \$4000

2017: *American Water Resources Association (Florida) William V. Storch Student Award*

- \$1500

2016: *Florida State University Study Abroad Scholarship*

- \$3000

Fall 2015, Fall 2016: *Dean's List*

- Minimum 3.5 GPA for the semester
- 12 credit hours

2015: *Florida Sea Grant Skoch Scholarship*

- \$1000

2015: *Bright House Networks Future Leaders Scholarship*

2015: *National Youth Science Camp Representative*

- Two selected high school students from Florida attend a six week science conference in west Virginia on a 7500 dollar scholarship. Attend daily lectures from the world's top scientists.

2015: *Daytona Beach News-Journal Medallion of Excellence*

- 39 winners from 14 high school senior classes

2015: *Deland High School Volunteer of the Year*

- Student with the highest amount of volunteering hours

2015: *DHS Student-Athlete of the month*

- March

2015: *Math Department Student of the Month*

2014: *State Science and Engineering Fair Attendee*

- Rose Bay Water Quality Research
- Honorable mention at state level
- 1st place at county
- Audobon Society award

2012: *The presidents volunteer service award*

- Requires over 250 hours of volunteer service with in 1 year

2012: *County Science Fair*

- Rose Bay Crown Conch mark and recapture
- 3rd place

2011: *Junior Black Belt*

2007: *Rotary Achiever Award for Outstanding Academic Achievement*

- Overcoming severe dyslexia

Conferences and Other Presentations

September 2018: *American Water Resource Association Technical Conference (Okeechobee, Florida)*

- Agriculture and Lake Okeechobee

April 2018: *University of Florida Engineering School of Sustainable Infrastructure and Environment – Research Show Case (Gainesville, Florida)*

- Presented poster on a literature review on the links between energy and ecological engineering

November 2017: *American Water Resource Association Technical Conference (Deland, Florida)*

- potable reuse water

November 2017: *American Water Resource Association Technical Conference (Daytona, Florida)*

- Indian River lagoon
- Presented Rose Bay poster

October 2016: *IFLA AR-URBIO Conference from cities to landscape: Design For health & Biodiversity (Panama City, Republic of Panama)*

- 3-day conference on elevating and integrating discussion of evidence-based environmental design that serves both society and the environment.

June 2012: *Rotary Youth Leadership Award (Jacksonville, Florida)*

- 4-day conference on leadership theory and building leadership ability

July 2011, July 2012: *Saving the Earth's Environment through Knowledge attendee (Tallahassee, Florida)*

- 4-day conference on environmental issues of Florida for High School students

Hobbies and Interests

Break/hip-hop dancing

- Waving
- Power moving
- Footwork
- Tutting
- Floor work
- Popping and locking

Latin dancing

- Salsa
- Bachata
- Merengue

Weight training

- 4 to 5 times per week

Fossil hunting

- Expedition 3 to 4 times a year

- Cameos in Fossil Hunters reality show on PBS

Outdoor activities

- Hiking
- Kayaking