Leo Austin Ghelarducci

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Education

Embry-Riddle Aeronautical University, Daytona Beach, FL

Ph.D. in Computer Science and Electrical Engineering *Expected December 2021*
Master of Science in Unmanned and Autonomous Systems Engineering *May 2017*
Bachelor of Science in Software Engineering *July 2014*

Work Experience

Senior Product Engineer at Space Domain Awareness, Inc, Orlando, Fl *May 2020 – December 2020*
- Product: Development of miniaturized Space Object Tracking Unit (SOTU).
- Designed and implemented "stamp size" core unit for SOTU.

Instructor for ECSSE Department at ERAU, Daytona Beach, FL *August 2017 – present*
- Course: EGR101 is an introduction to engineering course at ERAU.
- Organized and planned out the terms schedule.
- Designed a four-stage project for the students to learn engineering fundamentals.
- Introduced topics of engineering process(es), team dynamics, Arduino development and Internet of Things.
- Additional courses: CS118, Introduction to Programming [using Python]

Engineering Consultant for Dunkin Enterprises, Ormand Beach, FL *Dec. 2017 – July 2018*
- Product: Development of automated shrimp packaging machine to improve time efficiency of the operation.
- Consulted on hardware design for shrimp packaging machine.
- Implemented wiring and circuity for machine's control system.
- Designed and developed software for control of packaging machine

Museum Technician at United States Space and Rocket Center (USSRC), Huntsville, AL *July 2016 – August 2016*
- Assigned to Robotics camp to improved 'Sea Perch' activities for trainees.
- Improved traceability for the department.
- On call for repairs to USSRC simulators and equipment.

Crew Trainer at USSRC's Space Camp program, Daytona Beach, FL *May 2016 – July 2016*
- Taught the fundamentals of robotics to children from ages 9-15.
- Instructor of a team of sixteen.

Research Assistant at Next-Generation ERAU Advanced Research (NEAR) Lab, Daytona Beach, FL *Summer 2015*
- Designed and developed prototype NOAA weather sensor package for project Gale UAV payload.
- Integrated payload to PixHawk autopilot through custom MAVlink packages.

Lab Manager for ERAU ECSSE Department's Special Projects Lab, Daytona Beach, FL *Fall 2014 – Present*
- Organized communications between those teams and organizations held within the lab.
- Technical assistant for students in development and organization of projects.

Graduate Teaching Assistant for C Programming, Daytona Beach, FL *Fall 2014 – Spring 2017*
- Graded student homework assignments and final project code.
- Held tutoring hours for the students to improve their understanding and coding stills.

ERAU ECSSE Department Student Office Assistant, Daytona Beach, FL *Summer 2014 – Spring 2015*
- Relocated and organized XE Department project labs.
- Technical assistant for Summer 2014 Day Camp.

ERAU EGR101 Peer Mentor, Daytona Beach, FL *August 2013 – Dec. 2013*
- Organizing Intro to Programming lectures, using C/C++ with application practice using the Arduino microcontroller.
- Grading quizzes and homework assignments.

ERAU Disability Service, **Daytona Beach, FL** *January 2011 – May 2013*
- Provided one on one Math tutoring.
- Supported tutoring in subjects of Engineering and Programming.

Metalex Tech Inc., **Sanford, FL** *Summer 2011 and Summer 2012*
- Welder, welded both steel and aluminum.
- Fabricator, pre-assembly machining for part order.
- Shop hand, tool and material management and shop cleaning.

Eagle Scout

Boy Scouts of America *2001-2011*
- Eagle Scout Project *(Earned on May 16, 2010)*
  - Rebuilding of Highlands Elementary school's outdoor garden/classroom in Winter Springs FL

Skills

Programming Languages: Java, C/C++; *Scripted Languages : Matlab, Python; Others : Labview*
Operating Systems: Windows XP – Vista – 7 – 8 – 10, Android/Linux
Manufacturing: Welding, Metal fabrication, 3D printing, CAD, PCB design and development

Project Experience

ERAU ECSSE Senior Design *Fall 2013- Spring 2014*
- Project: IEEE SoutheastCon 2014 Competition, simulated robotic basketball game.
- Software Engineer, handling design and development of System controls.

ERAU Sea Perch Competition *Spring 2013 & Spring 2014*
- Co-Organizer, handled material management and setup.
- Competition was hosted by ERAU and held for Middle and High School teams.

ERAU Robosub Team (Autonomous Robotic Submarine) *Fall 2011 – Fall 2013*
- Team Leader, organized design and develop of Robosub platform.
  - Fall 2012 – Fall 2013
- Software Engineer designed and developed the control system and interfacing application through a custom GUI for testing.
- Hardware Lead, handled design and build of Robosub platform.
  - Fall 2011 – Fall 2012

ERAU Cárabo Team (UAV Outback Challenge) *Spring 2012*
- Software Engineer, handled basic Auto-Pilot system and 'Kill' protocol for safety system for UAV.

IEEE Member *Fall 2013 – Present*
- Institute of Electrical and Electronics Engineers
- Chair of IEEE ERAU student branch.
  - Spring 2014 & Spring 2015

Eta Kappa Nu member *2017 – Present*
- International Electrical and Computer Engineering Honor Society

Awards

Outstanding Service to the ECSSE Department *Spring 2016*
Nominee for Student Employee of the Year *2016*
Tied for First in TechEagles Hackathon *2019*
- Project: SmartCup, Health monitoring sport cup for measurement of vitals of user and environmental data with emergency alert due to fall or panic.