

CHRISTOPHER CROUCH

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EDUCATION

University of Florida

Graduating May 2023

B. S. Mechanical Engineering; Minor in Computer and Information Science and Engineering

Relevant Courses: Design and Manufacturing Laboratory, Mechanical Design 1, Programming Fundamentals with C++, Professional Communication for Engineers

TECHNICAL SKILLS

Languages	Python, C++, Java, MATLAB
Tools	SolidWorks (CSWA Certification), L ^A T _E X, Git

PROFESSIONAL EXPERIENCE

Herbert Wertheim College of Engineering

March 2020 - Present

Research Assistant to Graduate Student - Solar Powered Systems in Residential Homes

Gainesville, FL

- First authoring research paper that details a smart home system that controls and monitors energy consumption and output based on real time data to maximize efficiency
- Using MATLAB and Python to run simulations on modeled homes with real world data to analyze controller productivity

Warrington College of Business

November 2019 - Present

Technical Support for Staff and Students

Gainesville, FL

- Provide in-person and on-demand technical support throughout the business school for hardware, software and network issues
- Field user queries by phone and online submitted tickets, utilizing remote access to resolve problems

Programming Projects

August 2020 - Present

Github: <https://github.com/crouchc>

- Generated a Minesweeper copy game in C++ using the SFML library to capture user input and display graphics
- Created program in Java that acted as technical catalog which included attribute editing capabilities and sorting
- Designed AI in Java for Pacman with given interfaces that utilized inheritance, objects and advanced problem solving

ENGINEERING PROJECTS

Ball Retrieval and Release Robot

January 2021 - May 2021

- Collaborated to design, analyze, and evaluate a proposal for a robot that navigated a course and retrieved tennis balls
- Design process required bi-weekly meetings, evaluation matrices, and a complete Solidworks assembly of robot
- Functional features include gripping onto tennis balls on a multilevel stand, transferring them to a holding container on the robot, and then releasing the balls into a bucket

Proposal for Smart Capability in Campus Restrooms

August 2020 - December 2020

- Worked in group to brainstorm a recommendation to improve safety and efficiency on campus by adding smart sensors in campus bathrooms
- Collected data and conducted background research to determine the outcome smart sensors would have on the school
- Proposed that adding a smart sensor into frequented bathrooms on campus would enhance employee planning and safety on campus

Technical and Economic Analysis of Middle of the Market Aircraft

January 2019 - May 2019

- Collaborated with group to analyze over 40 current commercial air crafts and determine a gap in the market based on technical and economic factors
- Proposed economic and technical aspects of a middle of the market aircraft including interior and exterior dimensions, maximum takeoff weight, engine type, and cost per available seat mile

AWARDS & INTERESTS

Eagle Scout (2018), International Baccalaureate Diploma (2018), Gator Beach Volleyball Club President (2020), High School Varsity Tennis Team Captain (2015-2018), Formula 1 Racing, Climbing, Snowboarding, Beach Volleyball, Golf, Spanish