

William C. Duncan

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EDUCATION

Georgia Institute of Technology, Atlanta GA

Fall 2018-Present

- GPA: 3.61/4.00
- Bachelor of Mechanical Engineering
- Minor in Robotics

Berry College, Rome GA

August 2017-May 2018

- One of four dual enrollment students accepted

SKILLS

Programming: MATLAB, Python, Java, Arduino, C#, and C

Communication: Microsoft Office, Excel, and Event Coordinator

Drafting and Machining: Auto CAD, Inventor, and Solid Works

EXPERIENCE

Mechanical Engineering Co-Op / Amazon Robotics

January – June 2022

- Designed and evaluated ergonomic maintenance tools
- Performed Solid Works Finite Element Analysis to study tool forces
- Simplified robotic arm tool kit to decrease cost by \$500 per kit
- Optimized tool designs based on user feedback
- Updated supplier weld drawings

Manufacturing Engineering Intern/ Boston Scientific

Summer 2021

- Overhauled assembly lines for finished product
- Redesigned hopper system to decrease scrap waste by over \$1000 annually
- Designed and implemented value improvement ideas

Mechanical Engineering Student Assistant/ Georgia Institute of Technology

Spring 2020 - Spring 2021

- Utilized AutoCAD to design research lab layouts
- Fabricated and installed exhaust, nitrogen, vacuum, and water pipeline systems
- Drafted machinist drawings

PROJECTS

Robo Graffiti Cable Based Robot

Spring 2023

- Optimized design of 5 degree of freedom end effector

Tic Tac Toe SCARA Robot

Fall 2022

- Revitalized photo sensors to reduce noise
- Refined arm movement with a PID controller
- Simplified AI using Minimax algorithm

Robot Collective VIP Research

Spring 2021

- Refined the mechanical objective acquisition system
- Optimized computer mounts to reduce required fasteners
- Simplified robot to base station communication

Video Game Design

Spring 2016

- Utilized Unity game engine and C# to build chemistry-based game
- Researched what topics target audience struggled with

Facial Recognition Glasses for Alzheimer's Patients

Spring 2015

- Redesigned CAD Models for Glasses and Camera Mount
- Utilized rapid prototyping techniques and iterative design process

LEADERSHIP

Georgia Tech Student Center Programs Council

Spring 2019 – Present

- Worked with a team to help plan, organize, and host events within a budget