

Kiva Mccracken

📍 Orlando, Florida, USA [in](#) kivamccr [🔗](#) kivamccr.xyz

🎓 Education

B.S. Optics & Photonics, *University of Central Florida*

2026 Grad | Orlando, FL

Currently working towards a Bachelor's degree in Optics & Photonics.

AP Scholar Grad, *Suncoast Polytechnical Highschool*

2021 | Sarasota, FL

Technical School, engineering program, robotics, CAD, etc...

Precision Machining, *Suncoast Technical College*

2021 | Sarasota, FL

CAM, Hand Mill/Lathes, Haas CNC Mill/Lathes, & Welding.
+ Robotic Automation of Hass Mills.

Advanced Manufacturing, *Suncoast Technical College*

2020 | Sarasota, FL

3D modeling and various additive/subtractive manufacturing methods: 3D printing (SLA/FDM), Plasma Cutting, Basic Lathe Skills, & Welding.

🏢 Experience & Organizations

Research Assistant, *Dr. Jaesung Lee*

2024 - present | Orlando, FL

Researching MEMS and Optical MEMS technology for advanced sensing applications.

In-training Camp Director, *University of Central Florida*

2024 - present | Orlando, FL

Contractor, *Roots Engineering Services*

2021 - present | Remote

Assembling, designing, and providing assets for education oriented robotic systems.

Certified Technician, *Valvoline*

2023 - 2024 | Oviedo, FL

Customer service and various services changing automotive fluids.

Volunteer & Senior Committee Member, *Suncoast Science Center/Faulhaber Fab Lab*

2016 - 2021 | Sarasota, FL

Led a team of volunteers in the day to day and in organizing, designing, building, and running the annual RC Car Race where volunteers teach kids how to use machinery and STEM skills to customize their car for a custom built track. Upon graduation received a lifetime membership award.

🏆 Notable Certificates

- SolidWorks CSWP Professional

- NIMS CNC Mill Operations

- MATLAB Onramp

📖 Publications

[1] McCracken, K. G., Alza, L. A., McCracken, K. G., and Smith, M. M. (2012). Parasitism and joint incubation of upland goose (*Chloephaga picta*) nest by yellow-billed pintail (*Anas georgica*). *Ornitología Neotropical*, 23(2):287–290.

📁 Professional Projects

Linear Circuits Formula Sheets 2023 - 2024

Comprehensive formula sheet for Linear Circuits I & II, using LaTeX.

Robotic Surgery Training system 2022 - 2023

Rendering & initial design of mock remote surgery system, for elementary level robotics education.

Semiconductor Manufacturing Training System 2021 - 2023

Rendering, CAD, and design work for a collegiate level robotic training system in simulated semiconductor manufacturing.

Medallion Factory Training System 2021 - 2023

Rendering, CAD, and design work for a collegiate level robotic factory training system.

Robotic Medical Training System 2022 - 2024

A render for the proposal an elementary/middle school level robotic training system, the premise: robotic surgery.

Logistic Learning Factory 2022 - 2023

A render for the proposal of a collegiate level robotic training system package, that replicated a factory logistic layout of incoming boxes, AMRs, and robotic gantries.

The Great Naval Orange Race 2022

A GPS navigation based boat design, and an accompanying publication style research paper for the UCF annual Great Naval Orange Race.

Manatee County Build & Install 2021

The build, and install of a elementary level robotic training system.

SkillsUSA Welded Sculpture 2020

A welded butterfly and flower, made out of plasma cut steel. Won 2nd place in Regionals.