

# Ethan Schneider

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## EDUCATION

### GEORGIA INSTITUTE OF TECHNOLOGY PHD IN ROBOTICS

Aug 2022 - Present | Atlanta, GA

3.90 GPA

### KENNESAW STATE UNIVERSITY BS IN MECHATRONICS ENGINEERING

Aug 2018 - Aug 2022 | Kennesaw, GA

4.0 GPA summa cum laude with Honors

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## EXPERIENCE

### GEORGIA TECH RESEARCH INSTITUTE | ELSYS DIVISION | Co-OP SOFTWARE ENGINEER

Jan 2021 - Aug 2022 | Atlanta, GA

Responsible for designing, coding, and testing of Windows and embedded software for aircraft systems and aircraft protection systems test applications.

- Developed C# .NET 6.0 Framework radar and aircraft system simulator applications for customers and learned both WPF and MVVM architecture for developing graphical user interfaces.
- Assisted in fixing maintaining, and installing Minikube Docker container for working and building with  $\LaTeX$  documentation.

### FREEDOM ELECTRONICS | ELECTRICAL ENGINEERING INTERN

Sep 2020 - Dec 2020 | Kennesaw, GA

Analyzed and designed circuits and simulations using EAGLE and Microsoft Visio and designed test procedures for PCBs

- Wrote several test-procedure documents for workers to analyze PCBs, which allowed new types of boards to be worked on.
- Fixed several test apparatuses involving electronics and embedded systems.

### SOLAR VEHICLE TEAM | VICE PRESIDENT AND CS TEAM LEAD

Aug 2019 - Aug 2022 | Marietta, GA

Competition team involving the design, manufacturing, and racing of solar powered vehicles in competitions around the world.

- Assisted SVT President in project management, organizing sub-teams, fund management, and maintaining lab safety.
- Worked with the CS Team on programming the ORION BMS 2, SEVCON Motor Controller, and a micro controller with CANBUS communication for Solar Car operation, data collection, and data display to the driver using a Python GUI.

### ISRA SURFACE VISION | SOFTWARE ENGINEERING INTERN

June 2019 - August 2019 | Duluth, GA

Developed back-end software and Windows embedded cameras used for assembly line defect detection.

- Developed and implemented VB.net and C++ software for customer data analytics, SQL client, and OPC server and client.
- Configured, calibrated, and tested line scan embedded cameras with embedded windows for product inspection.

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## RESEARCH EXPERIENCE

### EXPLAINABLE AI (XAI) FOR HETEROGENEOUS MULTI-AGENT SYSTEMS

Jan 2023 - Current | Atlanta, GA

Developing systematized characterization of explanation types for heterogeneous team task allocation and scheduling, implementing a novel contrastive explanation interface, and pilot study to verify validity of these methods.

### FESTO MANUFACTURING SYSTEM DIGITAL TWINS

May 2022 - Aug 2022 | Marietta, GA

Worked with Dr. Guerra-Zubiaga on implementing a Digital Twins framework for a FESTO Manufacturing System (FMS) with Tecnomatix Siemens Software for a senior design project in collaboration with two other students at Kennesaw State University.

### MEDICAL IMAGING RESEARCH

Nov 2021 - Aug 2022 | Marietta, GA

Student Assistant and Undergraduate Researcher for Dr. Coskun Tekes and worked alongside Degertekin Research Group at Georgia Tech to develop a Python front and back-end for variable power supply control, sensor reading, and Scan Conversion algorithm for Intravascular Ultrasound (IVUS) medical imaging technology.

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## AWARDS AND CERTIFICATES

- Outstanding Undergraduate Research Award from Kennesaw State University