JOHNATHAN UPTEGRAPH

CONTROLS ENGINEER | DEVELOPER | ROBOTICS SPECIALIST

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SUMMARY

As an experienced Controls Engineer, I bring a wealth of expertise in developing advanced automation systems using industry-leading robot brands like ABB, KUKA, Yaskawa, and Fanuc. Proficient in efficient PLC and HMI programming, I ensure seamless functionality and optimize project outcomes. My background as a Robotics Undergraduate Teaching Assistant at Miami University and involvement in Dysphagia Robotics Research underscore my commitment to continuous learning and adaptability. While my focus has been in controls engineering, I am eager to leverage my problem-solving skills and passion for technology to drive innovation and enhance user experiences.

EXPERIENCE

- **Controls Engineer**
  - KC Robotics (May 2023 - Current)
    - Assisted with the integration of 20+ robots from manufacturers such as ABB, KUKA, Yaskawa, and Fanuc.
    - Developed PLC and HMI programs for industrial automotive solutions using Siemens and Rockwell software.
- **Robotics Undergraduate Teaching Assistant**
  - Miami University (Aug 2022 - Dec 2022)
    - Instructed 20+ students in Python, C#, and .NET programming languages, resulting in an overall 90% pass rate.
    - Implemented and oversaw 5 interactive projects using Vector, Furhat, and Pepper robots for ETBD department.
- **Web Development Undergraduate Teaching Assistant**
  - Miami University (Aug 2022 - Dec 2022)
    - Instructed students in HTML5, CSS3, SASS, JavaScript, and React.js development, resulting in a 95% pass rate.
    - Provided 20+ hours of weekly supplemental instruction and tutoring to 30+ students.
- **Computer Hardware Technician**
  - Resale Technologies, LLC (Jun 2022 - Aug 2022)
    - Created detailed inventory and testing reports for 1000+ IT hardware assets.
    - Assembled, maintained, disassembled, and updated 500+ computers and electronic devices, ensuring smooth operation and high customer satisfaction.
- **Dysphagia Robotics Researcher for Advanced Transition Cup**
  - Miami University (Jan 2021 - Aug 2022)
    - Designed and implemented a system to control liquid flow rate for patients using sensors, gyroscopes, accelerometers, and motors, resulting in a 40% improvement in patient comfort and safety.
    - Built and tested 5+ prototype boards, and 3D modeled several parts for Advanced Transitional Cup.
    - Programmed Adafruit, Arduino, and Raspberry Pi boards to record and analyze patient data from 20+ subjects.
- **Programming Instructor**
  - Code Ninjas (May 2019 - Aug 2019)
    - Taught programming languages such as C++, Java, JavaScript, CSS, and HTML to children aged 7 to 14.
    - Expert in tailoring teaching methods to match the unique learning styles and abilities of individual students.

EDUCATION

- Bachelor's Degree in Emerging Technology in Business and Design, Miami University, December 2022
- Minors in Computer Science and Games & Simulations

CERTIFICATIONS

- EPLAN Basic Training 2024, EPLAN Electric P8 (Issued Apr 2024)
- FANUC Handling Tool Operations & Programming Certification (Issued Feb 2024)
- Google Analytics Beginner Certified (Issued Jan 2022)

SKILLS

- Robotic Engineering: Skilled in design, programming, and control of manufacturing processes for enhanced productivity.
- Front-End Development: HTML, CSS, SQL, JavaScript frameworks and XCode for dynamic web/mobile solutions.
- Programming: Strong skills in C/C++, Python, Java, and JavaScript, with expertise in software development methodologies.
- Electrical Hardware Development: Experienced in electronic circuit design and prototyping for diverse applications.
- 3D Printing: Proficient in CAD modeling software and familiar with parameter optimization for high-quality 3D prototypes.

AWARDS AND HONORS

- Department of Emerging Technology in Business and Design: Excellence Award 2022
- National Academy of Engineering: Cyber Security Grand Challenge Scholar 2019
- Dean's List Academic Scholar Awarded in 2020, 2021, and 2022