Taylor Turner

Software Engineer

resume.tturner@gmail.com | 618-402-4677 | ifTaylorthenHire | ifTaylor | ifTaylor.com

Experience

BASTIAN SOLUTIONS | Software Engineer

1 year | September 2022 – Current | Maryland Heights, MO

- Developed software for manufacturing applications and interfacing automation controllers, robots, and vision systems. These solutions improved communication capabilities among peripheral devices and automated statistical data collection for tracking performance.
- Transitioned products from R&D to manufacturing, focusing on continuous improvement in integration testing and product statistics. Effectively identified and resolved issues, streamlined the product production and documentation, and improved overall product quality.

BECKWOOD PRESS | Electrical Controls Engineer

6 years | October 2016 – September 2022 | Fenton, MO

- Designed electrical systems for custom hydraulic and servo presses, which involved schematic design and the development of controls applications using automation controllers and numerical methods in Python. Advanced target generation, filtering, and linearization algorithms, resulted in a significant improvement in quality of material forming.
- Facilitated team collaboration to understand and prioritize low-level solutions. Our team grew design processes for accelerated development and integration.
- Led product performance publications. From extensive data collection and designing analysis tools, white-papers and marketing strategy showcased product performance and competitiveness within the marketplace.

EPIC INC. | Electrical Controls Technician

2 years | December 2014 – October 2016 | St. Louis, MO

- Oversaw the assembly and design of electrical panels and machine wiring for pilot plants, vision systems, and custom machines. The multidisciplinary nature of these products gave the opportunity to be cross-trained in mechanical and process design.
- Implemented designs that conformed to sanitary/wash-down, Class I Division I, and National Electric Code requirements.

Projects (Notable)

STACK | C#, SQL Server, React.js

- A palletization pattern solving application. Consequently, the solved pattern data is transmitted to a robot as location and orientation coordinates. The application incorporates features such reactive pattern editing, real-time peripheral device monitoring, and querying configurations. The application is patented, providing a robust palletization solution that helps the company maintain high-quality standards across its product line.

PICK | Python

- A middle-ware application responsible for interfacing a vision system's procedure calls, a robot's serial communication, and an automation controller's socket connection. By leveraging incoming data, analysis tools enhanced the precision of model training and pick performance. This innovative solution simplifies interfacing multiple manufacturers' communication requirements, allowing scalable and efficient automation design.

MOTION | Automation Controller/Pascal

- A specialized motion controller for hydraulic position, velocity, and force control. A custom PID loop, target modeling, and feedback tuning allowed unmatched actuator precision. The control algorithm was designed to be integrated into any automation controller, giving the company's hydraulic applications a competitive edge in the marketplace.

Skills

PROGRAMMING

Proficient:
C# • Python • SQL Server • TypeScript • HTML • Automation Controllers

Familiar:
C/C++ • Visual Basic • Blazor • PowerShell • LaTeX

FRAMEWORKS/ASSEMBILES

ASP.NET Core • Node.js • React.js • Flask • gRPC • Entity Framework • ClxDriver • Interop.FRRobot

DEVELOPMENT TOOLS

Visual Studio • VS Code • Postman • Swagger • TexMaker • Git • GitHub • Azure

METHODOLOGIES

Agile/Sprint • OOP • FMEA • UL 508A • SCADA • Project Management

Education

RANKEN TECHNICAL COLLEGE

Associate's in Electrical Control Systems

December 2014 | St. Louis, MO

Volunteer

Offensive/Defensive Line Coach, Titans of Troy, IL