

Charles Wilkin

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EDUCATION	Electrical Engineering B.S. – <i>Pennsylvania State University</i>	May, 2020
	Physics B.S. – <i>West Chester University</i>	May, 2020
EXPERIENCE	Electrical Controls Engineer – <i>Universal Machine Company</i>	Jul, 2019 – Present
	UMC designs and builds custom machinery for industrial automation. <ul style="list-style-type: none">• Programmed PLCs, HMIs, and robotic arms for custom machinery according to each client's unique requirements.• Developed electrical schematics and selected electrical components for large \$1M+ projects.• Automated onboard logging and reporting, meeting strict regulatory requirements for completeness, security and reliability.• Trained new engineers and wrote detailed programming procedures to expedite onboarding.	
INDUSTRIAL MACHINES	COVID PACS Controllers – Six industrial PACS controllers for the production of the COVID-19 vaccine.	Jun, 2021
	Filler/Capper/Labeler/Loader – A custom, fully-automated CFR 11 compliant packaging line for liquid pharmaceuticals.	Dec, 2020
	Rotavirus Inspection – Fail-safe labeling, inspection and rejection for rotavirus vaccine tubes.	Nov, 2020
	Autoinjector Sleever – Large one-of-a-kind machine for the packaging/labeling of pharmaceutical autoinjectors.	May, 2020
	Misc. – Numerous miscellaneous labelers, presses, filter testers and other pharmaceutical machinery.	N/A
PROJECTS	SobreMesa SCADA – A framework for web-based industrial control and data acquisition using only open-source tools.	Dec, 2020 – Present
	BusyBoredom.com – A portfolio website made using a systems-level language compiled to WebAssembly instead of JavaScript.	Jan, 2020 – Present
	Gooba – An event-driven spiking neural simulator written in rust.	Dec, 2020
	Amplifier Optimizer – A genetic algorithm that does your circuit design homework.	Apr, 2019
	Bro Server – A collection of self-hosted projects including XMPP, Bitwarden and Git servers.	Jan, 2019
SKILLS	Hardware – ControlLogix PLCs, MicroLogix PLCs, PanelView HMIs, ProFace HMIs, Panel PCs, Cognex Cameras, Epson Robots.	
	Databases – MSSQL, MySQL, PostgreSQL.	
	Software – Studio 5000, FactoryTalk View SE/ME, Autocad 2020, XLReporter, Microsoft SQL Reporting Services, GP-Pro EX.	

Programming Since 2011 (10 Years)