# Devon Walker

devon@devonwa.com | 717-304-2186 | Austin, TX
devonwa.com | linkedin.com/in/devonwalker | github.com/devonwa

Skills
**Programming:** Golang, JavaScript, TypeScript, Python, SQL, Make, C#, Java, HTML/CSS
**Frameworks:** React.js, Playwright, gorilla/mux, SciPy
**Databases:** MySQL, Kafka, Prometheus, Redis, FoundationDB, BoltDB
**Tools:** Linux, Git, Kubernetes, Docker, Ansible, Vault, Github, Graphana, Splunk, Nix

Experience

**Tesla, Inc.** — Austin, TX
*Staff Software Engineer* — *December 2021 – Present*

- **Data Visualization**: Designed an interactive inventory visualization application with React.js, d3 with SVGs, and Golang Fiber that allowed material flow teams to identify physical inventory discrepancies and reduced part-shortage production downtimes.
- **Observability**: Implemented Open Telemetry tracing across several Golang applications communicating via gRPC and Kafka, greatly reducing fault analysis time.
- **Human Machine Interface**: Developed a tool positioning system in Golang to enable use of a production worker's torque tool only when the tool is in the correct physical position, as detected by laser and proximity sensors communicating via ModbusTCP.
- **API Design**: Created REST APIs using gorilla/mux to enable complex quality data interactions between industrial scanners, lineside systems, and MES systems.
- **Serial Protocols**: Connected Golang applications to production line test equipment communicating with custom serial protocols on TCP sockets.

*Staff Automation Engineer* — *December 2019 – December 2021*
*Senior Automation Engineer* — *April 2018 – December 2019*
*Automation Engineer* — *May 2017 – April 2018*

- **Leadership**: Led a team of 7 engineers managing 6 foreign suppliers to deliver the control system of the Vehicle Paint Shop for the company's first international factory in Shanghai.
- **Design Architect**: Drafted an electrical and network architecture specification and managed its execution by 8 automation engineers leading 14 suppliers of Drive Unit production lines ( $100M+) to three factories on three continents.
- **Abstraction**: Redesigned PLC MES libraries to make transaction implementations transparent to machine process implementations.
- **Management**: Mentored a team of 7 direct reports and conducted over 150 interviews.

**EZSoft, Inc.** — Malvern, PA
*Automation Engineer* — *October 2012 – July 2015*

- **Data Acquisition**: Developed a C# application and GUI to integrate bespoke embedded devices into an industrial control system for sub-second RF process control.

**Chemical Engr. Dept., University of Pittsburgh** — Pittsburgh, PA
*Process Control Engineer Internship* — *May 2011 – December 2011*

Education

**Carnegie Mellon University** — December 2016
Master of Science in Chemical Engineering. 4.0/4.0.

- **Machine Learning**: Performed molecular simulations on nanoporous graphene to train a feedforward neural network to replicate the a Density Functional Theory exchange potential, reducing future simulations by hours per experiment.

**University of Pittsburgh** — April 2012
Bachelor of Science in Chemical Engineering. Minor in Computer Science. 3.3/4.0.