

BYRON WALL

byron@byroni.us | <https://byroni.us> | Indianapolis, IN

Software Developer with an extensive 14+ year career in engineering and software. Skilled in C#, TypeScript, JavaScript, and React, delivering highly interactive data-centric applications.

Skill and Competencies

- Front End: HTML, CSS, SVG, TypeScript, JavaScript, React, Electron, D3.js
- Back End and Databases: Azure, C#, Next.js, SQL, SQLite, InfluxDB, PostgreSQL, Python
- Problem Solving and Technical: Statistics, Data Analysis, Interactive Data Visualization, R
- Documentation and Training: Technical Writing, OBS, Markdown, Docusaurus

Allison Transmission / Indianapolis, IN

Staff Software Developer, Engineering Systems

February 2023 – Present

Created and maintain a data analysis and visualization platform for transmission time series data

- Tech stack: Back end uses C# with Nancy, SQLite databases; Front end is Typescript and React
- Architected and programmed a 100k LOC codebase, balancing between front end and back end
- Reduced reporting time from hours to minutes, replacing Excel and MATLAB for 100+ engineers
- Wrote unit tests related to data parsing, calculation engine, and time series analysis
- Created domain-specific language enabling engineers to develop custom analyses faster
- Front end provides interactive and exploratory data analysis using D3.js and SVG for data viz
- Wrote 100s of help pages in Docusaurus and filmed 10+ hours of training videos with OBS

Serve as primary technical contact between Engineering and IT organization

- Led security platform migration for Engineering with zero downtime and fewer false positives
- Managed conversion from Carbon Black App Control to ThreatLocker for 800+ workstations
- Worked across all Engineering groups to build robust rules that minimized disruption
- Coordinate software installs and dev environment provisioning for new employees

Staff Engineer, Hydraulic Systems

November 2021 – January 2023

Senior Engineer, Hydraulic Systems

November 2017 – October 2021

Created a tool to view and create interactive hydraulic schematics

- Built as an Electron app with visuals rendered to SVG elements via React and Typescript.
- Tool allows engineers to model existing and prototype products, aiding design and troubleshooting

TDA Research / Denver, CO

Research and Project Engineer

August 2015 – October 2017

- Designed a data pipeline to transfer CSV files into InfluxDB with Grafana for charting.
- Built an Excel add-in (C# XLL) to connect to the InfluxDB instance via Excel UDFs
- Built an automated quoting tool in Excel/VBA, reducing time from hours to minutes.

Continental Technologies / Boulder, CO

November 2014 – July 2015

Chevron Phillips Chemical Company / Houston, TX

Operations and Process Engineer

June 2010 – July 2014

- Built an Excel VBA add-in to query and analyze quality data, used by 20-30 engineers

ConocoPhillips / Terre Haute, IN

May 2009 – July 2009

Purdue University / West Lafayette, IN

August 2006 – May 2010

Bachelor of Science in Chemical Engineering (GPA: 3.97/4.00)