

CHRISTOPHER DAVIS – EXPERIENCED ANALYST / ENGINEER

ACTIVE DOD SECRET CLEARANCE

16+ YEARS OF HANDS-ON, CUSTOMER-FOCUSED, AND PROFIT-ORIENTED EXPERIENCE

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TOP CLIENTS

Air Force Research Laboratory (AFRL), NASA, Northrop Grumman, Delta Faucet Company, Tribar Manufacturing, Costco Wholesale, Walmart, WestRock, Bureau of Printing & Engraving

SKILLS

- **AI / LLM Tools:** Claude Code, Cursor, Gemini, Copilot, ChatGPT
- **Data Science:** EDA, Multiple Regression Analysis, Time Intelligence, Pandas, NLP, PCA
- **Programming:** SQL, Python, R, VBA, DAX, PowerQuery, Excel, MATLAB, Batch, Bash, PBS, Slurm
- **Data Visualization:** Power BI, Tableau, matplotlib, ggplot2
- **Statistics:** DOE, Hypothesis Testing, Minitab, Root Cause Analysis, Monte Carlo Simulation
- **Version Control:** Git / GitHub / GitLab, SolidWorks PDM
- **ERP:** Epicor, GlobalShop, Made2Manage, Arena
- **UI / UX / Dashboard Design:** Power BI, Tableau, SolidWorks PDM
- **CAD / Mesh Design:** Solidworks, AutoCAD, CUBIT

PROFESSIONAL EXPERIENCE

Applied Research Associates, Inc.

2023 – 2025

CAD Engineer for Computational Physical Sciences

Dayton, OH

- Coded pipelines for mesh generation, electromagnetic simulations, and data collection/analysis across distributed computing platforms using CUBIT, Python, Batch, Bash, PBS, and Slurm.
- Developed aerospace/defense RF signature CAD models with photogrammetry in SolidWorks for use in electromagnetic simulations (CREATE-RF SENTRI, Xpatch, Altair FEKO).
- Designed composite VARTM molds in SolidWorks for production of aerospace and defense assets.

Aerobiotix, LLC

2021 – 2023

Development Engineer

Miamisburg, OH

- Designed, implemented, and maintained SolidWorks Product Data Management (PDM) SQL vault and workflows.
- Programmed engineering macros and workflows for SolidWorks and SolidWorks PDM.
- Engineered next-generation portable vacuum prototypes (AeroCure VAC+, AeroCure Plume) that use UVC light and composite-media filtration cartridges to remove biological, chemical, and particulate contaminants from intake air.
- Conducted and documented proactive root cause analysis studies (Fault Trees, FMEA, Fishbone, 5 Why) during product development to ensure product quality at launch.
- Developed medical air filtration products including AeroCure VAC and Illuvia Sense.

Rack Processing Company

2019– 2021

Senior Design Engineer & Sales Engineer

Dayton, OH

- Developed rack product cost estimation models with Excel and Python using advanced statistical regression techniques, mapping quantifiable feature inputs to cost outputs. Reduced cost estimate turnaround time from ~48 hours to ~10 minutes (~99% reduction).
- Designed and sold electroplating and painting racks, managing accounts in the automotive and consumer plumbing sectors that yielded \$1.5M+ in annual revenue in 2019.
- Continuously improved rack product ROI and quality with inputs from customers, sales, production, quality, and engineering teams.

Power Distribution, Inc.

2015 - 2018

Mechanical Engineer III

Richmond, VA

- Engineered and patented data center power distribution technologies for PDUs, remote power panels, static transfer switches, and tap-off boxes.
- Administered / maintained engineering software applications including SolidWorks and SolidWorks PDM.

EDUCATION

Pennsylvania State University

Master of Data Analytics – Big Data Systems Option

Started January 2026, Graduation Expected May 2028

University of Maryland, Baltimore County

Bachelor of Science, Mechanical Engineering (ABET Accredited)

Graduated May 2009

- Tau Beti Pi Engineering Honor Society

PROJECTS

- **OneTaskAtATime** – Developed and released a focused and priority-smart to-do list manager featuring Elo ranking, task dependencies, search and filtering, recurring tasks, deferral analysis, and notifications. Tech Stack: Python, SQL, PyQt 5, Pytest, Winotify, dateutil
github.com/cmdavis25/OneTaskAtATime

CERTIFICATES

- IBM Data Science Professional
- University of Colorado Boulder – Excel/VBA for Creative Problem Solving

PATENTS

- **US 9,979,166:** Electrical Cabinet Service Door with Integrated Deadfront
- **US 9,768,591:** PDU with Front Side Access to Transformer Compartment