

JAMIE KLINE
Frederick, MD
findme@jamieline.com
(717) 377-6959

ELECTRONICS ENGINEER with 15 years of experience specializing in the design and troubleshooting of ruggedized circuits and systems for operation in harsh environments. A unique career equally spent in the lab and the field means robustly engineered solutions for demanding applications. Experience with circuit design, layout, bring-up, diagnostics, repair, programming (C/C++, assembly, LabVIEW), automated test equipment (ATE) design, author of technical publications, and advanced manufacturing troubleshooting: full life-cycle support. Quickly established as a technical leader in a variety of industries including bio-medical research, advanced manufacturing, commercial satellite component testing, and off-road heavy equipment.

EDUCATION

- Bachelor of Science (B.S.) Electrical Engineering, University of Massachusetts
- Associate of Science (A.S.) Electronics Engineering Technology, Penn. State

PROFESSIONAL EXPERIENCE

REU Electrical Engineer

NASA Goddard Flight Center, via Insight Global, Greenbelt, MD 3/2022 – Present

- Develop ground system test software for flight robotics control unit
- Provide guidance and expertise for remaining ground system hardware development and troubleshooting
- Coordinate box level software integration and development

Senior Principal Electrical Engineer

Northrop Grumman, Tactical Space Systems, Dulles, VA 5/2018 – 3/2022

- Design and develop electronic hardware to fulfill spacecraft, satellite, and payload testing requirements.

Electrical Engineer

Stanley Black & Decker, East Longmeadow, MA 10/2013 – 5/2018

- Saved millions of dollars in replacement costs of a proprietary one-off machine control system by diagnosing and repairing to component level, including data recovery. Designed redundancy options.
- Conducted proper signal-level diagnosis of motors/motor drives and high-power controls which prevented wrong component replacement. Engineered faster diagnostic solutions.
- Reduced downtime from days to hours by advising in-house engineering and technical staff on problems with new machine deliveries (ex.: improper grounding techniques causing logic-level signal issues).
- Mentored and trained technicians on efficient electrical diagnostic techniques, PID tuning, PLC diagnostics

Senior Research Associate Scientist (from Electronics Engineering Technician)

National Biodefense Analysis and Countermeasures Center (NBACC), Ft. Detrick, MD 6/2011 - 2/2016

U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), Ft. Detrick, MD 2/2008 - 6/2011

- Designed and deployed FDA-validated submersible electronic control systems.
- Streamlined device characterization and staff research by designing automated test equipment (ATE).
- Developed novel methods of respiratory measurements, communication protocols, high throughput acquisition and datalogging systems, and control algorithms with LabVIEW and NI TestStand.
- Developed and authored in-house calibration procedures for optical particle sizing instruments.
- Managed daily operations for BSL3 and BSL4 high containment cabinet labs.

Electronics Engineering Technician

Qortek Inc., Williamsport, PA / Albuquerque, NM 8/2003-5/2006

- Board level circuit design, layout, assembly, bring-up for military/aerospace contracts (8 layer).
- Low power design work, including battery chargers and mixed-mode switching power supplies.
- Embedded processor, FPGA, and PC programming (TI, Xilinx, Atmel).

JAMIE KLINE
Frederick, MD
findme@jamieline.com
(717) 377-6959

SPECIAL SKILLS

- Design:** Managed several \$1-2M circuit design projects from start to finish (from concept to schematic, through production). Dozens of 2-8 layer PCBs designed and manufactured in a wide range of sizes. BGA and QFP, card edge and cPCI routing. Routing complexity from high pin count DSP/FPGA's to analog circuitry and switching power supply design. Proficient in Altium Designer. Experienced with OrCAD. IP68/NEMA 6/6P design. Harness design for EMI, TVAC, vibe testing.
- Diagnostic:** Extensive experience with electronic measurement and generation equipment (8+ years) including analog/digital oscilloscopes, digital multimeters (DMMs), frequency generators, counters, high current/voltage supplies, CAN, RS232 analyzers, etc. Logical component-level troubleshooting skills.
- Service:** Highly skilled at SMT and through-hole [de]soldering. Capable of hand-soldering fine pitch packages and performing complex PCB repairs. Clear and concise reporting for analysis, repair, and reconditioning purposes. High mechanical aptitude, very hands-on, and extremely customer-focused. NFPA 70E arc-flash hazard trained and experienced.
- Linguistics:** Skillful in a variety of programming languages, including microprocessor based. Expert with legacy (DOS-era) and recent PC hardware and software. Linux user. Network and infrastructure understanding to frame/packet level. Prior Certified LabVIEW Assoc. Devel. Numerous software/script production releases.
- Fabrication:** AutoCAD 2005-2017 experience for mechanical 2D/3D drawings. Comfortable with, and capable of, one-off prototype production by means of any/all shop tools, including CNC mills, lathes, band saws, grinders, plasma cutters, etc. Clean, efficient, and safety-conscious lab/shop worker. Never afraid to get hands dirty to get the job done. Heavy equipment operator (mobile cranes, telescopic boom trucks, forklifts).

PUBLICATIONS

- P.Dabisch, J.Yeager, J.Kline, K.Klinedinst, A.Welsch, ML.Pitt. "Comparison of the efficiency of sampling devices for aerosolized Burkholderia pseudomallei". Co-author on article published in Inhalation Toxicology. 2012 Apr; 24(5):247-254.
- P.Dabisch, J.Kline, C.Lewis, J.Yeager, ML.Pitt. "Characterization of a head-only aerosol exposure system for nonhuman primates". Co-author on article published in Inhalation Toxicology. 2010 Feb;22(3):224-33.

PRESENTATIONS

- Kline JL, Dabisch PA. "Estimation of Real-Time Viable Concentration With a Real-Time Optical Particle Counter". Oral presentation and accompanying poster, at the Aerobiology In Biodefense-IV Conference, Glen Allen, VA, 23-27 June 2011.
- Kline JL, Dabisch PA. "Pre-Processing of Anomalies in Telemetry Data for Heart Rate Variability Analysis" . Presenter of poster topic presented as part of the National Cancer Institute's Spring Research Festival, Frederick, MD 5-7 May 2010.
- PA Dabisch, JL Kline, CQ Lewis, NR Batdorf, N Johnson, MLM Pitt. "Integration of High-Frequency Stability and Particle Size Measurements Into a Whole-Body Exposure System". Co-presenter as part of the American Society for Microbiology Conference, Baltimore, MD Feb 2009.