

# Joshua M. Curtis

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## EDUCATION

Master Of Science in Electrical Engineering  
Drexel University, Philadelphia, PA  
Advisor: Dr. Moshe Kam  
Master's Thesis : "Clustering Wind Patterns at the Commodore Barry Bridge"

Bachelor of Science in Electrical Engineering (June, 1999)  
Drexel University, Philadelphia, PA

Engineering Intern (April 2007)  
Successfully passed Fundamentals of Engineering Exam (formerly known as E.I.T.)

## EXPERIENCE

DV, Inc. (Bristol, PA)  
October 2008 - Present

**Senior Project Manager** – Oversee switchgear, power generation, UPS, and other power equipment maintenance for critical power systems. Provide 7x24 support for critical power systems and data centers.

Philadelphia Elec. Equip. Co. (Aston, PA)  
September 2004 – October 2008

**Project Manager** – Oversee switchgear and power generation projects from start to finish. Duties include (1) assist sales team in technical layout, design, and pricing; (2) Procure all necessary materials and schedule project; (3) oversee panel shop operations; (4) field-site commissioning.

**Field Engineer** – Travel to various job site for service calls, emergency calls, and/or switchgear commissioning. Duties include problem solving, relay logic, PLC programming, engine generator knowledge, power generation knowledge.

**Office Manager** – Coordinate and organize projects and project related information. Designed and implemented software to track projects, purchase orders, project schedules, shop labor, sales quotations, and outside resources. Managed all computers, network equipment, and phone equipment.

M&D Electric Comp., Inc. (Bensalem, PA)  
April 2003 – September 2004

**Office Manager** - assist in day to day operations of company. Duties include database development and maintenance, estimations and bids, project management and coordination.

**Field-site manager** – oversee electrical crews in field. Duties include task management, parts procurement, and inter-company cooperation.

Drexel University (Philadelphia, PA)  
July 1999 – April 2003

**Project Coordinator/Research Engineer.** Structural health monitoring of the Commodore Barry Bridge. Led team of 4 to 6 people to install various sensors, data acquisition hardware, network hardware, and computer hardware on bridge. Wrote extensive LabVIEW software programs to collect and store data as well as display responses and live video over internet. Managed all computer and networking equipment at office.

Down To Earth Computers (Bensalem, PA)  
October 2002 - Present

General computer consultant. Built and fixed computer hardware. Training in various software programs. Installed private home networks.

General Instrument (Horsham, PA)  
September 1997 - March 1998

Performed testing on Laser Modules. Assisted in development of Thermal Electric Cooler for laser and heat sink on laser module. Assembled module boards and performed cost analysis of various board assemblies.

SPD Technologies (Philadelphia, PA)  
September 1996- March 1997

Acted as a liaison for the production floor to better expedite circuit breaker production. Created and updated several databases. Creation and updating of CAD drawings.

Lockheed Martin (Moorsetown, NJ)  
September 1995 - March 1996

Magnetic shield development and testing for naval monitors. Responsible for resolving problems during the construction of Navy Destroyers. Assisted in the preparation of technical data packages for weapon systems improvements. Creation and maintenance of multiple databases.

## PUBLICATIONS

"Data Processing And Quality Assurance In Health Monitoring Of Constructed System." 2001 SPIE Conference Proceedings, San Jose, CA. The International Society of Optical Engineering, Vol. 4337, p. 484-499. August, 2001

"Optimizing The Degrees Of Controllability And Observability Of Intelligent Infrastructure Systems." 2000 America Controls Conference, Chicago, IL. ACC00-INV2605, Session WA01-5.

## TECHNICAL EXPERIENCE

Computer - Expert with Windows, Mac, Unix/Linux. Expert with most software programs, specifically databases, CAD, and programming (C/C++, G (LabVIEW), Java, COBOL, HTML, Visual Basic, VHDL.)

PLC - Experience with GE Fanuc, Allen-Bradley, Siemens, SquareD, National Instrument hardware and software.

## MAJOR PROJECTS

Philadelphia Elec. Equip. Co. (Aston, PA)

**Harvard University Blackstone Steam Plant** (Cambridge, MA) 2007-2008  
Lead engineer and project manager for the low voltage switchgear integration and medium voltage switchgear. Low voltage switchgear is a Main-Tie-Tie-Main system and provides multiple levels of emergency power through coordination and control of two utility source as well as Cummins 2500KW diesel generator. Medium voltage switchgear is a Main-Tie-Main system and provides multiple levels of emergency power through coordination and control of two utility source as well as Fincanterri 5500KW steam turbine generator.

**A.I. DuPont Hospital for Children** (Wilmington, DE) 2007

Lead engineer and project manager for medium voltage stand-by power plant. System serves as the main source for stand-by power, paralleling (2) 1000KW CAT diesel generators with functionality to expand to 3<sup>rd</sup> generator.

**Glaxo Smith Kline Vaccine Plant** (Marietta, PA) 2007

Lead engineer and project manager for low voltage switchgear system. System utilizes CAT 2250KW diesel generator for stand-by power as well as peak-shaving applications, soft transfer between utility and generator power.

**TDX Power Plant** (Deadhorse, AK) 2005 - present

Project engineer and for primer power plant in Deadhorse, Alaska. Work with other team leaders to facilitate and support power plant operations. Team leader for SCADA system, monitoring real-time data of (8) various engine generators, environmental conditions, fuel consumptions, etc.

**AT&T Cable Station** (St. Thomas, St. Croix, USVI) 2005 - present

Project engineer and manager. Stand-by power plants provide power to the long distance cable stations for AT&T. Responsible for maintaining switchgear and engine generators.

M&D Electric Comp., Inc. (Bensalem, PA)

**Faulkways Retirement Community** (Gwynedd, PA) 2004

Project manager for electrical installation in 30 new housing structures. Duties included management of 6 electricians, procurement of parts, and interfacing site construction managers, carpenters, plumbers, etc.

Drexel University (Philadelphia, PA)

**Commodore Barry Bridge Health Monitoring** (Chester, PA) 1999-2003

Project engineer for health monitoring of Commodore Barry Bridge. Duties include sensor installation, cabling, data acquisition installation, computer/network installation. Lead engineer for SCADA system, displaying real time video, sensor data, weather information on web as well as historical trending.