Mark Khusid

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www.markkhusid.net

Objective **A challenging position in electrical design engineering.**

University Education
1995 – 2000

Polytechnic University, Brooklyn, N.Y.
Bachelor of Science in Electrical and Computer Engineering
Graduation Date: Spring 2000
GPA: 3.50 / 4.00

Course Work Polytechnic University
1995 – 2000

Electronics I and II
C, C++, Assembly and Pascal languages
TCP/IP Analysis and Programming
Electric Circuit Design and Testing
Wireless, Ethernet and ATM Networks
Communications Engineering
Data Acquisition
VHDL Computer Design

Honors & Awards

- Dean's List, Fall 1996 – June 2000
- William L. Everitt Student Award of Excellence
- IEEE Student Branch Award
- Best Project Award – 1999 Summer Junior Research Internship Program
- Professor Myron M. Rosenthal Scholarship

Employment

2/2019 – Present

Moog, Inc., East Aurora, N.Y.
Electrical Design Engineer

1/2014 – 2/2019

Electrical Engineering Consultant

- Consulted on and designed novel devices for solar power applications
- Constructed prototypes from concept to testing phase using engineering best practices
- Used LTSpice to simulate designs and verify concordance with test results from built prototypes
- Implemented out-of-the-box solutions to solve design and testing challenges in small scale and unique solar power applications

7/2007 – 12/2013

Moog, Inc., East Aurora, N.Y.
Electrical Design Engineer

- Designed analog and power circuit card assemblies for mission-critical Electronic Control Units for the Taurus II, Delta IV and Centaur Launch Vehicles
- Designed, tested and implemented all-opamp Inductive Simulator for simulating servovalve dynamic response
- Designed test fixtures for 787 Aircraft program
- Analyzed complex circuits using pSpice, Mathcad and Matlab analysis software
- Prepared and presented designs to customers

1/2007 – 7/2007

Moog, Inc., East Aurora, N.Y.
Engineering Technician

- Constructed test fixtures to test flight critical electronic circuit boards
- Coordinated with engineering to optimize test fixture construction and test procedures
- Performed development and production testing of flight critical electronic circuit boards

2/2006 – 9/2006

Keller Technology Corporation, Inc., Tonawanda, N.Y.
Electrical Controls Engineer

- Designed electrical control systems for novel and complete manufacturing machinery
- Prepared drawing package of electrical schematics in AutoCAD Electrical 2006
- Researched and documented cost estimates to design and fabricate electrical control systems in response to user requirement specifications

3/2003-2/2006 **MK Buffalo Unlimited, LLC, Buffalo, N.Y.**
Real Estate Investor

- Acquired, rehabilitated and tenanted investment properties in the Buffalo, N.Y. area
- Communicated with accountants, attorneys, brokers and other business consultants and acquired knowledge of their respective fields
- Managed costs and rental income to insure business profitability
- Acquired knowledge and skill in financial statements and business computer software

9/2000 – 3/2003 **Space Technology Branch, US Army CECOM, Fort Monmouth, N.J.**
Computer Engineer

- Designed, assembled, configured and installed mission-critical computer systems in fixed, Army vehicular and airborne assets
- Performed extensive design, construction and field testing of Army tactical Wireless RF and Optical communications systems
- Soldered and assembled prototype Army electronic, optical and RF circuits and systems
- Configured routers, switches and transceiver communications components
- Spliced and connectorized Army and commercial optical fiber cables and network cables

1/1999 – 6/2000 **MP3L Laboratory, Polytechnic University, Brooklyn, N.Y.**
Research Assistant

- Soldered and assembled experimental apparatus to study optical microresonators
- Worked with laser diodes, optical fibers and interferometers
- Machined an optical fiber – microsphere coupler to study telecommunications applications

5/1997 – 8/1997 **Markperi International Enterprises Inc., Islandia, N.Y.**
CAD / Computer Consultant

- Drafted electrical schematics and machine parts utilizing AutoCAD
- Coordinated with technicians to improve existing drawings
- Installed and maintained network over company computer systems

Publications

N. J. Vallestero, **M. Khusid**, N. S. Prasad, LTC J. Carrano, G. Duchak, J. Ricklin, M. Vorontsov, "Free-Space Optical Communications Systems (FOCUS): An Army Overview," SPIE Photonics West Conference, Free – Space Laser Communication and Imaging II, Seattle, 9-11 January 2002

Special Skills

- Learning cybersecurity tradecraft, vulnerability analysis, exploit development, writing shellcode for x86-64, x86 and ARM processors.
- Proficient in basic web page design, web server operations, Amazon Web Services server administration, Docker Container deployment, and OpenVPN server administration.
- Webmaster for www.mkdynamics.net and www.k2pca.org
- Proficient in Red Hat Fedora and Debian based Linux such as Fedora Core, Kali, Parrot OS, and Ubuntu, Whonix and TAILS.
- Proficient in lathe and milling machine operations, electric circuit design, soldering and construction, computer assembly and troubleshooting, automotive maintenance and repair.

Hobbies

- Practicing penetration testing and Capture The Flag competitions on HackTheBox.eu
- Licensed Amateur Radio Operator with Extra Class license. Licensed Volunteer Examiner by ARRL, Volunter Exam Coordinator.
- Data communications using the AX25 over TCP/IP protocol on VHF Ham radios.
- Raspberry Pi projects.
- Practitioner of Tae Kwon Do, Krav Maga, Shaolin Kungfu, swimming and weight lifting.
- Camping, primitive survival and self-sufficiency.

References

Available upon request