Lindberg G. Williams, Jr.

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24605 Schoolcraft
Redford, MI 48239-2612

Career Objective:

Internship, Part-Time Employment, or Chartered Work in an Engineering Field is sought.

Education:

- Indiana Institute of Technology
  - Baccalaureate of Science in Computer Engineering:
  - Core Scope: Knowledge of, and practice with: analysis and design of digital logic circuits, finite state machines, bi-junction transistor (BJT) power amplifiers, field effect transistor (FET) power amplifiers, AC-to-DC power converters, electric signal filters, and network integration, using appropriate tools each; signal processing; creating and coding algorithms (realizations).

Field Experience:

- A Robot Project: Analysis of PG Drives Technology's model VSI wheelchair-control system and establishment of a specification for sourcing joystick signals (analog) to it. March 2006.
- Altogether: Over 300 hours of lab work (formal and informal) utilizing instrumentation for examining electromagnetic, electronic, or logic systems.

Hardware Syntheses:

- Analog/Continuous: Design and implementation of a low-pass multiple-feedback bi-quadratic (MFB) filter and a low-pass Fleischer-Tow bi-quadratic filter using the quadruple op amp ICs (the 138). May 2008.
- Digital/Discrete: Design and implementation of a 4-bit gray-code counter using only quadruple NOR gate ICs (the 7402LS). May 2007.

Software Syntheses:

- A Kernel Investigation: Implementation of uniprocessor time-division multiprogramming for the 18F-series PICmicro microcontroller via software context switching with execution preemption via hardware timer interrupts. April 2006.
- A High-Level Software Assignment: Implementation of a virtual memory system with an application programming interface upon which two forms of the merge sort was tested for a Data Structures and Algorithm Analysis course. November 2005.
- "IEEE" Rocket Project: Creation of test programs for the PICmicro microcontroller to work with a flash slaved over SPI (serial peripheral interface); moreover an application programming interface for the control operations built into the peripheral; as part of a telemetry package. November 2004.

Work Experience:

- Indiana Institute of Technology: *Work Study Program*, *Department of Mathematics and Science*
  - Lab Monitor, January 2003 — December 2003:
  - As supplement work, this occupation involved troubleshooting Internet, Information, and Computing Services for on-campus residents; providing tutoring and advice to Cisco Academy students in lab; Server Administration; MIT-style hacking as per authorized request.

Skill and Discipline:

- ✓ Symbolic Mathematical Expressionism and Abstraction.
- ✓ A priori et A posteriori (experimentation).
- ✓ Consideration of a non-scalar model of problems.
- ✓ Professional Engineering Practice.
- ✓ Corporate Governance and Bureaucratic Procedure.
- ✓ Non-descript but demonstrable aptitude.

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Familiar Utilities:

Hardware

- Computer Workstation Interfaces: ISPpro; MPLAB; Xilinx; ULI.
- Chip Specs — Communications: 74LS; 741; 555; PIC18F; PIC16F; AT45DB; MAX232: SPI; RS-232.

Software

- Compilers — Languages: GCC; PICC; GNAT; Microsoft Visual Studio: C; C++; Ada; BASIC.
- Assemblers — Architectures/Mnemonics: GAS; NASM; MPLAB; PASM: 80386; PICmicro; PEP/7.
- Server Administration: Gnu/Linux; Microsoft Windows 2003 Server; modern UNIX.
- Design/Workbench: Multisim; SimuAid; MPLAB; Xilinx; Oregano; TKgate.
- Symbolic Computational: MathCad; Maple.
- Shells/Scripting: Bash; PHP; Batch; JavaScript (MsIE6 or ASP); MATLAB.

Official Affiliations in Professional Organizations:

- ❖ Institute of Electrical and Electronics Engineers (IEEE), since September 2005
  - Computer Society Φ, since January 2007
  - Electron Devices Society, since January 2007
  - Communications Society, since September 2005
  - Member Grade, since May 2007
  - Student Grade, September 2005 — May 2007
- ❖ American Society of Engineering Education (ASEE), since April 2007

Unofficial Affiliations in Professional Organizations:

- ❖ Association for Computing Machinery (ACM), since September 2003