

## SHANNON L. FIELDS

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### EDUCATION

- B.M.E. Mechanical Engineering, University of Delaware, Newark, Delaware 2002
- A.A.S. Mechanical Engineering Technology, Delaware Technical and Community College, Stanton, Delaware 1997
- B.A. Physics, Frostburg State University, Frostburg, Maryland 1991

### EXPERIENCE

2004–present Research Associate I, Institute of Energy Conversion, University of Delaware, Newark, Delaware 19716

- Deposit thin films and fabricate solar cells for research purposes using complex vacuum equipment.
- Identify problems and recommend solutions and equipment or procedural improvements.
- Design and build highly specialized vacuum systems and other laboratory equipment. Instruct research staff and students on use of this equipment.
- Perform engineering design and construction of fixturing used in experimental systems.
- Train and supervise machine shop users.
- Responsible for the care of all machine shop equipment as well as various vacuum deposition systems.

2000-2004 Senior Research Technician, Institute of Energy Conversion, University of Delaware, Newark, Delaware 19716

1995-2000 Research Technician, Institute of Energy Conversion, University of Delaware, Newark, Delaware 19716

1992-1995 Lab Technician, Institute of Energy Conversion, University of Delaware, Newark, Delaware 19716

## PROFESSIONAL INTERESTS

Manufacturing and Production  
Mechanical Design and Analysis  
Systems Automation  
Fluid Mechanics and Heat Transfer

## SKILLS

- **Engineer Intern:** Passed the Fundamentals of Engineering (FE/EIT) exam.
- **Computer Programming:** FORTRAN, Computer Numeric Controls (CNC), LabVIEW, Programmable Logic Controls (PLC), Visual Basic
- **CAD Software:** AutoCAD, Claris CAD, MicroStation, Vector Works
- **Machine Shop:** Hands-on use of lathes, milling machines, welding (MIG/TIG), and various other machines.

**Analytical Equipment:** Atomic Force Microscope (AFM), Scanning Electron Microscope (SEM), Spectrophotometer, and X-ray Diffractometer.