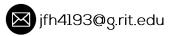
John F. Hughes







Objective: Recent graduate seeking a position relating to either device or process engineering with a great interest in honing software development skills. Available September 2017.

Software

Education

MATLAB Java Silvaco Athena/Atlas Minitab AutoCAD LT Pyxis Layout

Master of Science - Rochester Institute of Technology

Microelectronic Engineering

08/15 - 08/17 3.81 / 4.00 GPA

- Researched methods to improve sensitivity of metal-oxide chemical sensors for volatile organic compound detection through process development, electrical simulation, and robust electrical testing procedures
- Collaborated with a group to develop a MATLAB program with a GUI to effectively model ion implantation with different processing conditions

Instrumentation

Bachelor of Science – Rochester Institute of Technology Chemical Engineering

09/10 - 05/15

3.40 / 4.00 GPA

Semiconductor parameter analyzer X-ray diffractometer Atomic force microscope Microscope Microscope

Scanning-electron Leica Nomarski P5 profilometer ASML lithography stepper Physical/chemical vapor

deposition vacuum

Professional Experience

Northrop Grumman Corporation - Baltimore, Maryland

05/16 - 08/16

Technical Engineer Intern [Process Integration, Emerging Silicon Technologies]

- Obtained and maintained a confidential DoD clearance
- Characterized silicon devices through both I-V and transconductance characteristic curves obtained through semiconductor parameter analyzers
- Developed design of experiments to determine optimal chemical-mechanical planarization (CMP) processing of deep-trench isolation (DTI) integration
- Diagnosed problematic photolithography processing of semiconductor devices through root-cause analysis of process modules

Leadership

systems

AIChE RIT Chapter Webmaster Graduate teaching assistant Alumni brother of Alpha Phi Omega, Xi Zeta Chapter RIT Designate Orientation

Harris Space and Intelligence Systems - Rochester, New York

06/15 - 08/15

Manufacturing Engineer Intern [Analytical Instrumentation]

- Organized process development documents of analytical instrumentation in a PTC Windchill database for product lifecycle management
- Developed design of experiments to determine optimal production of wire assemblies for piezoelectric detectors

Volvo Group - Hagerstown, Maryland

01/14 - 07/14

Manufacturing Engineer Co-op [Group Trucks Operations]

- Developed efficient, ergonomic standard operating procedures for workstation development of Project EVENFLOW, a regeneration of the diesel engine manufacturing line used in Hagerstown's manufacturing plant
- Managed Kaizen project which developed apparatus to prevent screws/bolts from falling into engines and subsequently causing downtime

Languages

Leader

Spanish (ILR 2) ASL (ILR 3)

United Refining Company - Warren, Pennsylvania

03/13 - 08/13

Process Engineer Co-op [Process/Project Engineering Department]

- Designed process flow improvement for asphalt loading operations
- Characterized light and heavy hydrocarbons with quantitative analysis
- Analyzed piping and instrumentation diagrams of flare system exhaust for EPA regulatory commission