

# James Nathan Osborn, Jr.

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**Objective** Seeking full-time position in the field of chemical engineering

**Education** Villanova University, Villanova, PA  
Expected graduation 12-02  
1-00 to present Chemical Engineering Major

8-97 to 12-99 University of Maryland at Baltimore County, Baltimore, MD  
Chemical Engineering Major

**Employment** NASA Goddard Space Flight Center, Greenbelt, MD  
**Summers** GS-4 Student Trainee, Cooperative Education – Contamination Engineering  
Hubble Space Telescope contamination project

- Formulated and implemented experimental contamination testing
- Implemented Tape lift operations for Contamination
- Calculated Cleanliness levels and Mil Std levels for Hubble Cleanroom

Performed rigorous tests dealing with properties of Adhesion

- Studied effects of applying adhesives to Silicon Wafers
- Observed reactions to adhesives caused by various chemicals
- Recorded theoretical measurements of contamination from Satellites
- Prevention in the loss of contamination in transportation of Silicon wafers

Supplied technical writings and reports of empirical data to Supervisor  
Awarded certification with Type I, II, and III a & b LASERS  
Learned and implemented various contamination and modeling computer programs

1-98 to 5-99 Chemistry, Mathematics, and Physics Tutor- University of Maryland at Baltimore County  
Chemistry tutor for Kinetics, Redox Reactions, Stoichiometry  
Mathematics tutor for Differential Equations, Calculus I, II, & III  
Physics tutor for Mechanics, Electromagnetism, and Optics

**Awards** Sigma Pi Sigma – Physics National honor society,  
Academic Honor Roll, Athletic Scholarship  
Big South Conference Academic Honor Roll

**Activities**

12-99 to present Varsity Cross Country and Track & Field competitor – Villanova University  
11-01 Member of NCAA Division I Qualifying Cross Country Team  
8-97 to 8-99 Varsity Cross Country and Track & Field competitor – University of Maryland Baltimore County  
98 Captain of Cross Country Team – University of Maryland at Baltimore County  
97 Most valuable runner – University of Maryland at Baltimore County

**Languages** Experienced with FORTRAN and HTML

**Platforms** UNIX, IRIX, and LINUX  
Windows – including NT Workstation and XP, 95, 98, 00

**Software** MathCAD and AutoCAD 2000

**References** Available upon request