

# CHRISTOPHER C. WILKINS

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## OBJECTIVE

To apply my technical intuition and skills in a productive fashion in an aerospace position by working with rocket propulsion and spaceflight

## EDUCATION

**Polytechnic University**, Brooklyn, NY; Expected Graduation: May 2007

Masters of Science in Mechanical Engineering (started Fall 2005)

**Rensselaer Polytechnic Institute**, Troy, NY; Graduated: May 2005

Bachelor of Science in Aeronautical/Mechanical Engineering

G.P.A. 3.5/4.00 Dean's List all semesters

## EMPLOYMENT

**Research Assistant and Graduate Fellow**, Polytechnic University (Fall 2005-Current)

- Conduct research in satellite constellations and formation flying
- Teach high school students Physics at public school in Brooklyn

**Software Production Engineer, Globalspec**, Troy, NY (2004-2005, Part-time)

- Assigned product specifications for the engineering web site

**Software Developer, G. E. Power Systems**, Schenectady, NY (Summer 2003):

- Worked with Java and XML to create Help Wizards for Power Systems software; networked Windows systems to a Linux server

**Structural Engineer, Sikorsky Aircraft**, Stratford, CT (Summer 2002):

- Developed custom physical repairs for field rotorcraft based on analysis, physical engineering practices, and fabrication techniques
- Performed Structural Analysis for S-76, Blackhawk, and various other rotorcraft developed by Sikorsky
- Used CATIA software to analyze structural components of airframe
- Created CAD models of various aircraft parts

**Experiment Designer, West Virginia University**, Morgantown WV (Summer 2001)

- Designed and constructed a micro-gravity fluid-flow experiment for the KC-135 in NASA's Reduced Gravity Student Flight Opportunities Program
- Implemented experimental design, construction, and preparation in an apparatus that tested for the Kelvin Force on a Paramagnetic Fluid in Microgravity from theory to flight testing in the confines of one summer
- Proved through the successful experiment that the Kelvin force acts as the dominant body force on paramagnetic fluids in a microgravity environment

**Researcher, Rensselaer Polytechnic Institute** (Spring 2001)

- Used bioscience software with materials science lab samples to investigate possibilities for the software/hardware combination in a materials field

## RELATED

### COURSEWORK

**Project:** Hybrid Rocket Propulsion Capstone Design

- Personally started a new course at RPI giving students hands-on rocket propulsion experience
- Developed a 'Morphing Rocket' to fly a mile with a hybrid motor and then morph into a flying configuration for controlled gliding
- Took on managerial, design, construction, and analysis responsibilities to launch the rocket, providing proof-of-concept for morphing rocket design

**Previous:** CAD, Spaceflight Mechanics, Aerospace Structures, Propulsion Systems, Aerodynamics, Fluid Dynamics Lab, Rocket Design Capstone, Linear Systems, Signals and Systems

**Current:** Transfer Phenomena, Sensor-Based Robotics, Stress Analysis

## COMPUTER SKILLS

MATLAB and Simulink, Maple, Solidworks, CATIA V4/V5, MS Office, C Programming Language, UNIX

## LANGUAGE SKILLS

Studied one year at the Otto-Friedrich Universität Bamberg in Bamberg, Germany fine tuning my German skills and expanding my exposure to diverse cultures. Also have a conversational level of French.

## INTERESTS

Teaching rhythm tap dance, performing modern dance and ballet, skiing, traveling, practicing French, and practicing my German