

# Alex Barrie

<b>Objective</b>	My objective is to obtain an exciting job in electric propulsion, dynamics and control, or plasma environment research. I would also like to take advantage of my computer and graphical skills.		
<b>Employment</b>	<b>2005-Present</b>	<b>Virginia Tech CAPLab</b>	<b>Blacksburg, VA</b>
	<u>Graduate Research Assistant</u> <ul style="list-style-type: none"> <li>• Designed and ran simulations on backflow from ion thrusters onto solar panels</li> <li>• Development of charging components for Coliseum plasma flow application</li> <li>• Designed and wrote 3D immersive flow visualization program</li> <li>• Support for user's parallel codes on AOE department SGI system</li> <li>• Design, support, and grade homework and projects for plasma and propulsion classes</li> </ul>		
	<b>2001</b>	<b>SAIC</b>	<b>McLean, VA</b>
	<u>Aerospace Intern</u> <ul style="list-style-type: none"> <li>▪ Developed JAVA program <i>Orbital Vehicle Simulation</i> used to calculate satellite trajectories</li> </ul>		
	<b>1997-2001</b>	<b>Distributed Solutions</b>	<b>Herndon, VA</b>
	<u>Internet Software Developer / Graphic Specialist</u> <ul style="list-style-type: none"> <li>▪ Developed company's first web-based program, <i>WebRegSearch</i></li> <li>▪ Rewrote 16-bit DOS based document building program for Windows</li> <li>▪ Installed and maintained company's FreeBSD web server</li> <li>▪ Visited client sites for installation and instruction support</li> </ul>		
<b>Education</b>	<b>1999 - Present</b>	<b>Virginia Tech</b>	<b>Blacksburg, VA</b>
	<u>Aerospace Engineering Masters Student</u> <ul style="list-style-type: none"> <li>▪ B.S. in Aerospace engineering earned in May 2004</li> <li>▪ Currently enrolled in M.S. program in Aerospace Engineering <ul style="list-style-type: none"> <li>- Thesis: Differential Spacecraft Charging From Ambient and Induced Plasmas</li> </ul> </li> <li>▪ Member of hydrogen to Mars AIAA design team <ul style="list-style-type: none"> <li>- Designed spacecraft mission to transport 150,000 kg of hydrogen to Mars.</li> </ul> </li> <li>▪ Performed research on Mini-Magnetospheric Plasma Propulsion <ul style="list-style-type: none"> <li>- Published and presented paper at 2004 AIAA regional student conference</li> </ul> </li> <li>▪ Member AIAA (American Institute of Aeronautics and Astronautics)</li> <li>▪ Noteworthy Classes: <i>Spacecraft Propulsion, Spacecraft Design, Spacecraft Environment, Astromechanics, Spacecraft Dynamics, Thermodynamics, Vehicle Vibrations + Control</i></li> </ul> <p><b>Software Proficiencies:</b> Matlab, C++, Fortran, Java, Mechanical Desktop, LaTeX, PHP, SQL, HTML, 3dStudio, Bryce, Poser, Photoshop, Visual Basic, MS Office, UNIX, Windows, MacOS</p>		
	<b>1994 - 1999</b>	<b>South Lakes HS</b>	<b>Reston, VA</b>
	<u>F.I.R.S.T. Robotics Competition Team</u> <ul style="list-style-type: none"> <li>▪ Designed and constructed 4'x4'x3' robot capable of remote controlled movement, and picking up large balls to place in an elevated goal</li> </ul> <u>JETS (Junior Engineering Technical Society) Team</u> <ul style="list-style-type: none"> <li>▪ Represented South Lakes High School in nationwide physics competition</li> </ul>		