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|  | ENRIQUE MAXWELL LONGTON | | | | |  | | | | |
|  | 3331 Circle Brook Dr. • Apt. G • Roanoke, VA 24018  🖂 [elongton@vt.edu](mailto:elongton@vt.edu) 🕽 202-320-5859 | | | | |  | | | | |
| EDUCATION | | | | | | | | | | |
| **Master of Engineering: Mechanical Engineering –** Dynamics and Control | | | | | | MAY 2011 | | | | |
| Cornell University | | | | | |  | | *Ithaca, NY* | | |
| **Bachelor of Science: Engineering Science and Mechanics** | |  | | | |  | | | MAY 2010 | |
| Virginia Tech  In Major GPA: 3.35/4.00  Dean’s List 2009-‘10  Minor: Mathematics (Minor GPA 3.76/4.00) | | | | | | *Blacksburg, VA* | | | | |
| RELEVANT COURSEWORK | | | | | | | | | | |
| Multivariable Control Theory • Feedback Control Systems • Theory of Linear Systems • Intermediate Dynamics Applied Linear Systems • Linear Control Theory | | | | | | | | | |  |
| EXPERIENCE | | | | | | | | | | |
| **Engineering Instructor –** Faculty Supervisor: Mrs. Tamara Knott | | | | | FALL 2012 | | | | | |
| Developed pilot version of ENGE 1024. Taught two introductory engineering courses to over 210 students: ENGE 1024 - Engineering Exploration and ENGE 1114: Engineering Design. | | | | |
| **Graduate Research Assistant –** Advisor: Dr. Craig Woolsey | | | | | FALL 2012 – SPRING 2013 | | | | | |
| Modified a nonlinear control algorithm designed for submersible trajectory tracking towards the control of an unmanned aerial vehicle. | | | | |
| **Vibrations Engineer –** Advisor: Dr. Mehdi Setareh | | | | | SPRING 2012 | | | | | |
| Conducted structural vibration tests on several buildings to create a limitation standard for noise levels in buildings. | | | | |
| **VT Center for Injury Biomechanics –** Advisor: Dr. Warren Hardy | | | | | FALL 2011 | | | | | |
| Applied machine shop skills to aid various research projects including a blast test on the Army V-Hull Stryker mine protection vehicle. | | | | |
| **Cornell FSAE Team** – Advisor: Dr. Albert George | | | | | SPRING 2011 | | | | | |
| Created a track simulation with Matlab to help future students design the Formula – Society for Automotive Engineers (FSAE) race car and optimize lap time. | | | | |  | | | | | |
| **Cornell CUSat Satellite Project** – Advisor: Dr. Mason Peck | | | FALL 2010 | | | | | | | |
| Employed knowledge of attitude determination, control, and navigation subsystem analysis to prepare satellites for NASA launch. | | | | |  | | | | | |
| **VT Passive Cooling Senior Design Project** - Advisor: Dr. Jack Lesko | | | | FALL 2009 – SPRING 2010 | | | | | | |
| Designed a system that passively cools power-electronics which were used to mitigate electric grid power fluctuations. | | | | | |  | | | | |
| **VT Research Assistant to Ph.D. Candidate**- Advisor: Dr. L. G. Kraige | | | | FALL 2008-SUMMER 2009 | | | | | | |
| Assisted the design of a system that automatically corrects dynamic imbalances in automobile wheels using small spherical masses free to move along tracks inside the wheel. | | | | | | |  | | | |

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| EMPLOYMENT AND LEADERSHIP | | |  | | | | |
| **Private Math and Science Tutor**  Instructed a high school student bi-weekly in subjects including Algebra II and Physics. | | | | FALL 2012-SPRING 2013 | | | |
| **Lab Technician – McGrath Chemistry Group**  Performed various thermal characterization techniques on polymer samples such as differential scanning calorimetry (DSC) and thermal gravimetric analysis (TGA) to develop a stronger carbon fiber than is currently available. | | | | | SUMMER 2011 | | |
| **Lab Technician – Polymer Solutions Inc.** | | | SUMMER 2010 | | | | |
| Facilitated processes at chemical sampling and analysis center by executing administrative and lab related tasks. | | |
| **Tutor – Rigid Body Dynamics** | | | SUMMER 2008 – FALL 2008 | | | | |
| Tutored students in the areas of particle and rigid body kinematics and dynamics. | | |
| **Lead Mentor - Network of Engineering Transfer Students** | SUMMER 2007-SUMMER 2008 | | | | | | |
| Directed student-run program for engineering transfer students and worked with Engineering Education professors to introduce students into the Virginia Tech community. | |  | | | | |  |
| ACTIVITIES | | | | | | | |
| New River Valley Symphony – 1st chair violinist | | SPRING 2013 | | | | | |
| Cornell DanceSport Team | | FALL 2010 | | | | | |
| Marine Corps Marathon | | OCTOBER 2009, 2011 | | | | | |
| Virginia Tech Percussion Ensemble | | SPRING 2009 | | | | | |
| SKILLS | |  | | | | | |
| **Language**  Proficient/Conversational in Spanish | | | | | |  | | |
| **Computer**  Adobe Photoshop and Illustrator, Ansys, Autodesk Inventor (Similar to Solid Edge), LabView, Matlab, Mathematica, Microsoft Office, Minitab, TecPlot 360 | | | | | |
| **Web Development**  HTML, CSS, JavaScript, JQuery, Python (Django)  Website projects: www.tellers-of-tales.com | | | | | |
| REFERENCES | | | | | | | |
| **Sue Mecham, Ph.D.**  Research Scientist  (540) 230-5606  sjmecham@vt.edu | | | | | | | |
| **Patrick Cunningham, Ph.D.**  Assistant Professor of Mechanical Engineering  (540) 231-6555  [pc1973@vt.edu](mailto:pc1973@vt.edu) | | | | | | | |
| **Craig Woolsey, Ph.D.**  Assistant Department Head for Graduate Studies: Aerospace Engineering  (540) 231 – 8117  cwoolsey@vt.edu | | | | | | | |