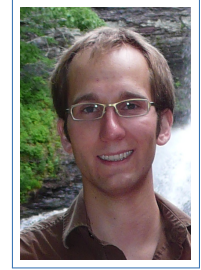


# Brandon J. Dillon

## Resume

595 Kamran St.  
Christiansburg, VA 24073  
☎ (540) 449-9003  
✉ bdillon@nr.edu



## Education

- 2013–TBD **Doctor of Philosophy**, *Virginia Tech*, Blacksburg, VA, *GPA: 3.37.*  
Civil Engineering
- 2010–2013 **Master of Science**, *Virginia Tech*, Blacksburg, VA, *GPA: 3.44.*  
Mechanical Engineering
- 2004–2007 **Bachelor of Science**, *Virginia Tech*, Blacksburg, VA, *GPA: 3.72.*  
Mechanical Engineering - Minor: Economics

## Experience

### Professional

- 2010–pres. **Graduate Research Assistant**, *Virginia Tech Baker Hydraulics Lab*, Blacksburg, VA.  
Design, Fabrication, and Operation of Scientific Instrumentation in Support of Waterway Erosion Control Research Conducted by the Baker Lab.  
Development of Experimental Techniques and Procedures using knowledge of Fluid Mechanics, Signal Processing, Control Theory, Analog & Digital Electronics, Data Acquisition, and Machine Shop Equipment.
- Developed US Provisional Patent No. 61/876,717 – "Hydrophone Calibration Device"
  - Supported by National Science Foundation Grants: EAR-0439663 and EAR-0738759
- 2014–2016 **Adjunct Instructor**, *New River Community College*, Dublin, VA.
- Instructor of Record for EGR 115 - "Engineering Graphics"
  - Instructor of Record for EGR 120 - "Introduction to Engineering".
  - Workforce Development Trainer for Geometric Dimensioning and Tolerancing (ASME Y14.5), Blueprint Reading, and Electrical Safety
  - Average Contact Hours per Semester: 9 — Total: 54
- 2008–2010 **Research Intern**, *Crutchfield, Inc.*, Charlottesville, VA.  
Development and Deployment of Loudspeaker Characterization Testing Methods in Anechoic Environments.
- Utilized RT Linux, Bruel & Kjar Measurement Equipment, Anechoic Environments
  - Programmed Low-Level C for Signal Processing and Convolution Engine

- 2008-2012 **Flight Instructor**, *Various*, New River Valley, VA.  
Primary, Advanced, and Recurrent Flight Training for Individuals and UAV Programs.
- CFI: ASEL&S, IA, Glider
  - Experimental Authorization: AVL-29
  - FAA High Altitude Physiological Training

### Volunteer

- 2011–2014 **Tutor**, *Montgomery County Public Schools*, Christiansburg, VA.  
One-on-one Tutoring of At-Risk and Learning Disabled High School Students in Math and Science.

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## Publications

***The 'Electric' Pascal: Absolute and Dynamic Calibration Techniques***,  
*B.J. Dillon*, MS Thesis, September 2013.  
Blacksburg, VA

***Measurements of particle movement and local turbulent flow characteristics at incipient conditions***,  
*Celik A. O., Valyrakis M., Dancy C. L., Diplas P, Akar T., Dillon B.*, RiverFlow International Conference on Fluvial Hydraulics, September 2008.  
Izmir, Turkey

***Analysis of initiation of bed material motion under turbulent flows***,  
*Celik A. O., Dancy C. L., Diplas P., Valyrakis M., Dillon, B.*, ASCE 18th Engineering Mechanics Division Conference, June 2007.  
Blacksburg, VA

***Slagging Properties of Poultry Litter Ash During Combustion***,  
*B.J. Dillon, S-S. Kim, F.A. Agblevor*, The Deans' Forum on Energy Security and Sustainability, October 2006.  
Blacksburg, VA

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## Awards and Honors

- 2015 **Finalist**, *Virginia Community College System's Excellence in Education Awards*.
- 2015 **Best New Entrant**, *AHS/Boeing's 32nd Student Design Competition – Faculty Advisor*.
- 2016 **Finalist**, *Goddard Space Flight Center's STEM Takes Flight Faculty Development*.