
CHRISTINE D. ALENCAR, MS & LEED GREEN ASSOCIATE

1310 East Market Street | Charlottesville, VA 22902
T: 434.924.9531 | E: cda4k@virginia.edu

- ✓ Critical Thinking & Problem Resolution
 - ✓ Presentation & Writing Skills
 - ✓ Attention to Detail & Quality Driven
 - ✓ Networking & Program Implementation
 - ✓ Highly Self-Motivated & Goal Oriented
 - ✓ Technical Competencies
-

EDUCATIONAL & PROFESSIONAL PROFILE

Sustainability Outreach & Engagement Specialist, Green Labs

University of Virginia Facilities Management, Office for Sustainability;
Charlottesville, Virginia

December 2016 - present

Laboratory Specialist II, Undergraduate Lab Preparator

University of Virginia Biology; Charlottesville, Virginia

August 2015 – October 2016

Laboratory and Research Specialist I

University of Virginia Biology; Charlottesville, Virginia

September 2013 – August 2015

Master of Science, Entomology

University of Kentucky College of Agriculture; Lexington, Kentucky
Completed summa cum laude

June 2010 – May 2013

Bachelor of Science, Environmental Science (minor, Chemistry)

Christopher Newport University Biology, Chemistry, Environmental Science; Newport News, Virginia
Completed magna cum laude

August 2006 – May 2010

Summer Intern, Water Quality Monitoring

Virginia Department of Environmental Quality

May 2008 – August 2008, May 2009 – August 2009

PROFICIENCIES & EXPERIENCE

Sustainability Outreach & Engagement

- Certified LEED Green Associate
- Community Based Social Marketing
- Working Group facilitation
- Outreach program design and implementation

Lab Management

- Procurement and budgeting
- Maintaining lab equipment and chemical inventories
- Writing protocols and Standard Operating Procedures (SOPs)
- Experience maintaining insect, reptile, and amphibian colonies and lab populations, greenhouse and vivaria
- Permit and protocol renewal

Molecular and Chemical Analysis Techniques:

- Polymerase chain reaction (PCR)
- Gas chromatography – mass spectrometry (GCMS)
- Primer design
- ELISA assay

- NanoDrop spectrophotometry
- Qubit quantitation
- Gel electrophoresis

Natural and Life Sciences:

- Biosafety Level II Certified
- Certified Biological Cleanroom Technician
- Field research design and implementation
- Insect and plant identification
- Microscopy
- Fungiculture and Mycology

Software and Computer Applications:

- ArcGIS
- GeneMarker
- Geneious
- NCBI, BLAST, FASTA
- Microsoft Office Programs

COMMUNITY INVOLVEMENT & CONTINUED EDUCATION

UNIVERSITY ENGAGEMENT, COMMITTEES, & OUTREACH:

1. **Facilities Management Employee Council**
 - Council member August 2018 – present
2. **University of Virginia Staff Senate**
 - Facilities Management Representative August 2018 – present
3. **Skipwith Hall Facility Coordinator** January 2017 – present
4. **Environmental Stewardship Subcommittee** December 2016 – present
5. **Sustainability Teaching & Research Subcommittee** December 2016 – present
6. **UVA Green Labs Working Group**
 - Co-chair December 2016 – present
7. **Virginia Cooperative Extension, Master Gardener Program**
 - Guest lecturer, General Entomology December 2015
8. **University of Virginia Entomology Club** December 2013 – October 2016
 - Staff sponsor, seminar coordinator
9. **Harrison Garman Entomology Club, University of Kentucky** June 2010 – December 2013

WORKSHOPS AND SHORT COURSES:

1. **Biological Cleanroom Certification Course** Carson City, NV; February 2015
 - Aloha Medicinals Incorporated
2. **Biotoxins; Blooborne Pathogen and Biosafety; Chemical Safety (three courses)** Charlottesville, VA; November – December 2013
 - Institutional Biosafety Committee and Environmental Health and Safety, University of Virginia
3. **Working Safely with Animals** Charlottesville, VA; October 2013
 - Institutional Animal Care and Use Committee, University of Virginia
4. **Natural History and Taxonomy of the Carabidae** Brookings, SD; June 2012
 - International Organization for Biological Control, Nearctic Regional Section
5. **Teaching at the Collegiate Level** Lexington, KY; Fall 2011
 - Graduate School, University of Kentucky
6. **Women and Leadership** Newport News, VA; Spring 2009
 - Christopher Newport University

AWARDS & PROFESSIONAL AFFILIATIONS

- Sustainable Lab Procurement **ACT Label Award**, I2SL (2018)
- International Institute for Sustainable Laboratories (I2SL)
- U.S. Green Building Council
- American Association for Sustainability in Higher Education
- University of Kentucky Graduate Student Interdisciplinary Conference, **3rd place poster presentation** (2011)
- Christopher Newport Biology, Chemistry, and Environmental Science, **Pugh Award** (2010)
- Christopher Newport University **Undergraduate Summer Research Grant** (2009)
- Beta Beta Beta Biological Honor Society, Psi Sigma chapter (CNU)
- American Chemical Society
- Entomological Society of America
- American Arachnological Society
- International Organization of Biological Control
- Ohio Valley Entomological Association
- National Honor Society

PUBLIC PRESENTATIONS

C. Alencar and D. Livingston, *Engineering Engagement: The Building-Occupant Interface of Green Labs*, presented at the annual meeting for the International Institute for Sustainable Laboratories in Raleigh NC, 2018.

UVA Green Labs workshops and program data have been presented to various departments and individual research labs on grounds, including but not limited to groups in Pathology; Microbiology, Immunology, and Cancer Research (MIC); Biomedical Engineering; Chemistry; School of Medicine Administrators; Core Facility Directors; Center for Public Health Genomics; and others.

Data from Master's Thesis, *An assessment of the invasive poison hemlock and its insect associates in Kentucky*, were presented under various titles in both poster and oral presentation formats at the following Conventions: Second International Symposium on the Molecular Detection of Trophic Interactions (Lexington, KY, 2013), Entomological Society of America National Annual Meetings (Knoxville TN, 2012; Reno, NV, 2011), The University of Kentucky Center for Ecology, Evolution, and Behavior Annual Meeting (Lexington, KY, 2012) and the Ohio Valley Entomological Association Annual Meeting (Frankfort, KY, 2011).

Data from Undergraduate Research Project, *A survey of the mayfly (Ephemeroptera) species of the George Washington and Jefferson National forests of western Virginia*, were presented under this title in poster format at the following Conventions: UK Graduate Student Interdisciplinary Conference (Lexington, KY, 2011), ESA Annual Meeting (San Diego, CA, 2010), and the CNU Paidiea Conference (Newport News, VA, 2010).

Doug Livingston, P.E., CEM, LEED AP BD+C

206 Monte Vista Ave
Charlottesville, VA 22903
434-981-2346
d.livingston83@gmail.com

PROFESSIONAL EXPERIENCE

University of Virginia – Delta Force Energy Optimization Team; Charlottesville, VA

Energy and Sustainability Engineer, July 2016 – Present

- Identify and implement energy savings opportunities in buildings on University grounds
- Project manage energy retrofit projects with budgets ranging from \$100,000 to \$1 million
- In post-implementation phase of the project, monitor energy performance and system performance to verify estimated energy savings are realized
- Analyze building meter energy trends to identify times of day and year where energy usage is outside of efficient operation
- Install submetering devices on a branch circuit level to further analyze equipment load usage
- Provide technical support in developing a Green Labs program at the University
- Serve as the University's sustainability stakeholder on large capital projects
- Review new construction drawings to verify capital projects are compliant with the University's Green Building Standards
- Developed a Life Cycle Costing spreadsheet calculator which is required to be used by capital project teams to evaluate competing design options that have different ongoing costs (energy performance, equipment life, maintenance, etc.)

Harvard University – Green Building Services Department; Cambridge, MA

Program Manager, September 2014 – July 2016

Project Manager, June 2013 – September 2014

- Collaborate with University stakeholders in advancing energy efficiency and sustainable practices in the built environment
- Manage day to day operations of a staff of five
- Oversee GBS's sustainability and commissioning services
- Manage the department's new service offering of measurement and verification
- Provide quality control of all major deliverables created by GBS
- Co-Author of a study focusing on laboratory ventilation practices at Harvard
- Review construction documents to check for compliance with Harvard's Green Building Standards and for the project's sustainability goals
- Act as the commissioning agent for new construction and renovation projects
- Perform energy audits and draft energy reports recommending potential ECRs
- Act as LEED administrator for projects pursuing LEED certification
- Coordinate feasibility studies for potential roof mounted renewable energy systems

Harvard Extension School; Cambridge, MA

Teaching Fellow, Fall 2013

Instructor, Fall 2015

Guest Lecturer

- Teaching fellow for E119 – Introduction to Sustainable Buildings: Design and Construction

Doug Livingston, P.E., CEM, LEED AP BD+C

206 Monte Vista Ave
Charlottesville, VA 22903
434-981-2346
d.livingston83@gmail.com

- Co-instructor for E119B – Optimizing the Energy Performance of Existing Buildings
- Guest lecturer on life cycle cost analysis at the TH Chan School of Public Health

Henderson Engineers Inc.; Lenexa, KS

Mechanical Engineer, July 2011 – June 2013

- Lead mechanical engineer for new and existing buildings in the retail, commercial, and residential sectors
- Junior plumbing designer for new and existing buildings in the retail and commercial sectors
- Reviewed contractor shop drawings and equipment submittals
- Provided construction administration service through answering RFI's and performing site investigations
- Coordinated with architects, contractors, owners, and other consulting engineers to complete mechanical and plumbing designs
- Proficient in AutoCAD 2010, Microsoft Office Suite, TRACE 700 and COMCheck
- Experience with operating Revit and Gasworks

WSP Flack+Kurtz; San Francisco, CA

Mechanical Designer, June 2008 – July 2011

- Designed HVAC systems under the direction of the project engineer and/or project's lead designer
- Performed energy modeling simulations of building energy use in order to estimate annual energy consumption
- Operated AutoCAD, REVIT, TRACE 700, EnergyPro, and various equipment selection software to complete mechanical designs

DLR Group; Omaha, NE

Mechanical Intern, June 2007 – May 2008

- Prepared design drawings for HVAC systems under the direction of the project engineer
- Reviewed contractor submittals for construction document compliance
- Performed energy analysis to estimate annual building energy use

TECHNICAL SKILLS

- Autodesk Revit 2013
- AutoCAD
- TRACE 700
- COMcheck
- Energy Star Certification
- Siemens
- Johnson Controls Metasys
- LEED
- Title 24 regulations
- eQuest
- IES
- EnergyPRO
- ALC WebCntrl

LICENSURE

- Professional Mechanical Engineer: Licensed in the State of California
- LEED AP BD+C
- Certified Energy Manager

PROFESSIONAL ORGANIZATION

- ASHRAE Member
- USGBC Member

Doug Livingston, P.E., CEM, LEED AP BD+C

206 Monte Vista Ave
Charlottesville, VA 22903
434-981-2346
d.livingston83@gmail.com

EDUCATION **Bachelor of Science, Architectural Engineering**, August 2007

Master of Science, Architectural Engineering, May 2008

University of Nebraska, Omaha, NE

- Dean's List
- Chancellor's Scholar
- ASHRAE Student Chapter Officer

SAMPLE PROJECT LIST

Energy Auditing / ECM Implementation

- UVA Aquatics and Fitness Center
- UVA Pinn Hall (Research Building)
- UVA Bavaro Hall
- UVA North Ground Recreational Center
- Harvard ARB Weld Hill, Boston, MA

HVAC Engineering Design

- UCSF Building 19A (Neuroscience Laboratory) – San Francisco, CA
- DeAnaza College MLC Building – Cupertino, CA
- Arizona Diamondbacks/Colorado Rockies Spring Training Complex – Scottsdale, AZ
- P.F. Changs - Los Angeles, CA
- Sam's Club Renovations - multiple locations
- Mariano's Fresh Market – Chicago, IL
- Grandview 12 (movie theater) – Grandview, MO

Commissioning for New Construction

- Harvard FAS Tozzer Library, Cambridge, MA
- Harvard FAS Bright Arena, Boston, MA

LEED Administration

- 405 Howard St – LEED EBOM v2.2
- Arizona Diamondbacks/Colorado Rockies Spring Training Complex – LEED NC v2.2
- UVA Clark Hall – LEED EBOM v4
- UVA Olsson Hall – LEED CI v4

Measurement and Verification

- FAS Stone Hall
- FAS Tozzer Library

Solar PV Feasibility Study

- Harvard HDS Center of Studies for World Religion (installed 30 kW)
- Harvard FAS Arnold Arboretum (installed 60 kW to date with another potential for 400kW)
- Harvard Art Museums (planned installation of 30 kW)