

Jessie Powell

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13829 NW Charlton Rd, Portland, OR

Project Portfolio: <https://jessiepowellprojects.wixsite.com/welcome>

Professional Presence: <https://www.integral-corp.com/staff/jessie-powell/>

Education

Aug 17 - Jun 20

Cornell University, College of Engineering, Ithaca, N.Y.
Bachelor of Science (MS), Environmental Engineering

Relevant Coursework

Watershed Engineering • Environmental Engineering Processes • Water Quality Engineering • Microbiology • Hydrology • Water Chemistry • Environmental Systems Analysis • Sustainable Development • Wetland Restoration • Water Resource Management • Public Speaking • Microeconomics and Entrepreneurial Management

Professional Experience

Nov 21 - Present

Integral Consulting Inc., Portland, OR

Associate Engineer, EIT

Jul 20 - Nov 21

Assistant Engineer, EIT

- Supported engineers, hydrogeologists, and scientists in various stormwater, remediation, and restoration projects.
- Helped fellow engineers with cost allocation of contaminated sediments, groundwater, and soils.
- Worked with CAD technicians in aiding engineering designs for various projects.
- Provided on-hand field support in groundwater, soil, sediment, and biota sampling for remediation projects in Oregon and Mississippi.
- Gained experience in writing environmental site assessments (ESA), feasibility studies (FS), stormwater permitting proposals, and grew familiar with additional environmental reporting measures.

California Native Garden Foundation (CNGF), San Jose, CA

Apr 17 - Aug 17

Intern on Grant Writing Team

- Wrote and edited grants for funding of various community outreach regenerative farming projects.
- Spoke at Santa Clara City Hall about a proposed "Agrihood", or sustainable living complex with a farm and research lab.

Projects/Research Experience

Fall 19 - Spring 20

"Sapsucker Woods Outfall Replacement and Beaver Control Retrofit Plan"

From CEE 5021/22: Project in Environmental and Water Resource Systems

- Aided in a graduate thesis project of wetland site analysis at Sapsucker Woods in Ithaca, NY. Researched potential solutions for ongoing beaver problems and redesign of water exit system for on-site pond. Final report included components such as water flow and buoyancy calculations, design storms and watershed analyses, cost estimate, construction sequence, and construction site plans.

Fall 19

"Assessment and Comparison of Various Infiltration Models"

From CEE 6320: Hydrology

- Compared four soil filtration models (Philips, Horton, Kostiakov, and Green-Ampt) with experimental data of sands, clays, and vertisols, ploughed and unploughed. Calculated the relative errors of each from observed and calculated flow rates and determined the optimal models for water management uses.

Mar 18 - Sept 19

Laboratory of Aquaculture, Cornell Department of Environmental and Biological Engineering, Ithaca, NY

Lead Student Project Support Specialist

- Analyzed lettuce growth and development from aquaponic wastewater.
- Led a team of undergraduate researchers through task delegation, weekly meetings, and communication to the head professor.
- Assisted in bi-weekly harvest of day-neutral strawberries and data entry, analysis, and laboratory testing.
- Fed, built, and maintained aquaculture and hydroponic systems in the lab.

Jan 19 - Sept 19

AguaClara Project Team

Horizontal Filtration sub team member

- Ran experiments related to horizontal sand filtration for water treatment plants in Honduras.
- Used Atom, Markdown, OnShape CAD, and Github to create reports, graphs, and visualize experiments, and fabricated with construction tools and PVC welding.

Winter 17 - Spring 17

Sustainable Living Undergraduate Research Project (SLURP)

- Class devoted to sustainability and climate neutrality on Santa Clara University campus.
- Conducted research on levels of composting in dorms and worked towards expansion of personal compost bins on campus.

Extracurricular and Volunteer Work

April 21 - Present

Crisis Text Line, <https://www.crisistextline.org/>

Crisis Counselor

- Completed 30 hours of training in crisis intervention counseling.

- Talked with texters struggling with immediate risk of suicide, self harm, abuse, and more through intense moments into a safe space.
- Interacted with texters in crisis for an accumulated 50 hours to date, with a commitment of at least 200 hours.

Cornell Minds Matter

Jan 19 - May 20

Events Team Member

- Volunteered and planned campus events related to student mental health.
- Created, planned, and implemented new events related to injured athletes and nutrition, mental health, and recovery.

Winter 17 - Winter 19

Track and Field

- Athlete on Cornell University Division 1 collegiate team.

Hobbies

Guitar • Creative Writing • Javelin • Backpacking

Certifications

Oct 20

Engineering Intern (EIT), License No. 96700EI

The Oregon Board of Examiners for Engineering & Land Surveying

Mar 21

First Aid/CPR/AED Training

Feb 20

AutoCAD Civil 3D Essentials Training

Feb 19

EHS Online Lab Safety and Chemical Waste Disposal Training,

Skills

Proficient in

- Microsoft (Word, Excel, and PowerPoint)
- AutoCAD Civil 3D
- Life Cycle Assessments
- Visual MINTEQ
- LogPlot

Novice in

- R
- Python

References

Mike Rolband, Professor in Practice

Cornell University in Ithaca, NY

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Andrew Halmstad, Engineer

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