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## Education:

<b>M.A., Geography</b> (in progress)	2019-2021
University of Calgary	Calgary, AB, Canada
Graduate Certificate in University Teaching and Learning (completed)	
Vice President of Internal Affairs, Geography Graduate Student Association	
<b>B.A., Geography &amp; Environmental Studies</b>	2007 – 2012
University of Colorado Denver	Denver, CO, USA
Certificate in Geographic Information Systems (GIS)	

## Scholarships and Awards:

- CA\$11,000 Alberta Graduate Excellence Scholarship (2020)
- CA\$3,000 O'Brien Institute for Public Health Directors' Graduate Scholarship (declined - 2020)
- CA\$750 Graduate Students' Association Professional Development Grant (2020)
- CA\$430 University of Calgary, Dept. of Geography, Graduate Supplement Award (2020)
- CA\$11,000 Alberta Graduate Excellence Scholarship (2019)
- CA\$6,500 University of Calgary, Dept. of Geography Scholarship (2019)
- US\$1,200 Segal AmeriCorps Education Award (2017)
- US\$5,200 Segal AmeriCorps Education Award (2016)

## Research Interests:

Urban Political Ecology, Nature, Resilience, Open Data, Participatory Planning

## Research & Professional Experience:

<b>Graduate Research Assistant</b>	5/2019 - present
Engaging Open Data Research (PI: Ryan Burns, University of Calgary)	Calgary, AB
<ul style="list-style-type: none"><li>• Critically examines roles of open data in moderating urban dynamics in smart cities</li><li>• Coordinates research efforts to engage municipal and community groups</li><li>• Conducts semi-structured interviews with public, private, non-profit, and community members</li><li>• Collaboratively drafts and edits manuscripts for peer-reviewed publication</li></ul>	
<b>Conservation GIS Technician</b>	2/2017 – 5/2019
The Nature Conservancy, Pennsylvania Chapter	Philadelphia, PA
<ul style="list-style-type: none"><li>• Pioneered chapter's urban GIS methods to develop green stormwater infrastructure in Philadelphia</li><li>• Architect of statewide data collection system for all stewardship management interests (e.g. property boundaries, trails, signage, human impacts, etc.)</li><li>• Conducted multi-state analysis to identify forest carbon sequestration partnership opportunities</li><li>• Managed ArcGIS Online, produced web maps, data visualizations and data collection applications</li><li>• Delivered research, analysis reports, analytics, data visualizations and cartographic products</li><li>• Recruited, trained, and coordinated data collection teams and volunteer trail crews</li></ul>	
<b>Stream Assessment GIS Technician (AmeriCorps)</b>	8/2016 – 12/2016
U.S. National Park Service, Great Smoky Mountains National Park	Gatlinburg, TN
<ul style="list-style-type: none"><li>• Geolocated and inventoried previously uncharted streams and wetland features</li><li>• Conducted hydrologic and biological assessments of stream corridors and origins</li><li>• Predicted hydrology feature locations through LiDAR derived analyses</li></ul>	

(research and professional experience continued)

**Watershed Restoration Intern** 8/2016 – 12/2016  
Wildlands Engineering Asheville, NC

- Coordinated stakeholder meetings with diverse community, private, and municipal groups
- Analysis of city parcel and zoning data for remediation project planning
- Field assessment of degraded urban waterways for analysis of community health impacts

**Volunteer Coordinator & GIS Technician (AmeriCorps)** 9/2015 – 8/2016  
Environmental Quality Institute Asheville, NC

- Coordinated water quality monitoring programs successfully sampling 170 sites monthly
- Interpreted data through maps and statistics for technical reports and grant applications
- Generated CSS and HTML5 code for interactive web-based charts and maps
- Managed 150 volunteers, training, then matching skills and interests to organization needs
- Educated 200 people of diverse age and backgrounds on natural resource management topics

**Disaster Services Intern** 4/2015 – 6/2015  
The American Red Cross Asheville, NC

- Advocated for vulnerable clients providing casework and recovery planning services
- Engaged community groups and inspected properties for disaster shelter planning
- Designed web maps of shelter locations to streamline assessment projects
- Participation in board, community outreach, and volunteer development meetings
- Coordinated two 40-volunteer fire alarm installation events for underserved communities

### **Volunteer Experience:**

**Chair of the Sunnyside Brightening Committee** 7/2020 – Present  
Hillhurst-Sunnyside Community Association Calgary, AB

- Coordinates community-led art and recreation initiatives on urban infrastructure and greenways
- Facilitates focus groups with community members to translate ideas and needs into actions
- Collaborates with municipal workers to advocate for community safety, health, and creativity

**Disaster Action Team & GIS Volunteer** 1/2015 – 05/2019  
The American Red Cross Asheville, NC & Philadelphia, PA

- Serves with regional GIS working group to provide GIS support for disaster preparedness
- Responded to disaster events providing assistance and emotional aid to impacted clients
- Assisted in identifying client's available resources and developing plans to recovery
- Trained for national deployment in mass-sheltering and disaster assessment

**Satellite Imagery Processing Volunteer** 10/2015 – 01/2020  
Humanitarian OpenStreetMap Team Remote

- Digitizes features in satellite imagery creating essential data for humanitarian aid response
- Validation of user submitted data providing quality control and user feedback
- Projects contributed to: 2018 Resilience Mapping of Ayeyarwady Delta (Myanmar), 2017 Crowd Sourcing Non-Camp Refugee Data (Uganda), 2016 Ecuador Earthquake Response, 2016 Malaria Elimination Program (Swaziland), 2015 Disaster Preparedness Campaign (Java, Indonesia)

(volunteer experience continued)

**Disaster Relief Worker, Crew Leader**

1/2009 – 4/2009

Common Ground Relief

New Orleans, LA

- Worked directly with community members to identify needs for sustainable development
- Planned and directed teams of volunteers for debris removal workdays
- Rehabilitated damaged homes through cleaning, construction, and maintenance
- Prepared meals with Food Not Bombs collective addressing nutritional needs of communities

**Publications**

2020 : Burns, R. & Welker, P. Moral Economies of Open Data Platforms. *Association of Internet Researchers Selected Papers of Internet Research* (peer reviewed)  
[doi.org/10.5210/spir.v2020i0.11186](https://doi.org/10.5210/spir.v2020i0.11186)

**Conference Presentations:**

- 2020: “Moral Economies of Open Data Platforms”. Co-presenter Dr. Ryan Burns. Association of Internet Researchers Conference. Dublin, Ireland (held virtually)
- 2020: “Moral Economies of Open Data Platforms”. Co-presenter Dr. Ryan Burns. European Association for the Study of Science and Technology & Society of Social Studies of Science Conference: Prague, Czech Republic (held virtually)
- 2020: (Accepted – session canceled due to COVID-19) “The Interstitial Smart City: Beyond Top-down and Bottom-up Smartness”. Co-presenter with Dr. Ryan Burns. Annual meeting of the American Association of Geographers. Denver, CO
- 2019: “Engaging Open Data”. Co-presenter with Dr. Ryan Burns. Cybera Cyber Summit. Kananaskis, AB, Canada
- 2019: “Conservation GIS Roundtable”. Panel co-organizer. Pennsylvania Land Conservation Conference. Mountain Top, PA, USA
- 2019: “Data Collection Applications for Conservation Fieldwork”. Pennsylvania Land Conservation Conference. Marlton, PA, USA
- 2018: “Engaging Digital Humanitarianism” Central Pennsylvania GIS Day. Harrisburg, PA, USA
- 2018: “Prioritizing Resilient and Connected Landscapes” (Invited). Northeastern Association of American State Foresters Meeting, U.S. Forest Service. Elkins, WV, USA
- 2016: “Stream Mapping at Great Smoky Mountains National Park”. University of Tennessee Knoxville GIS Day, October 2016. Knoxville, TN, USA

**Conference Attendance:**

- 2019 : Pennsylvania Land Conservation Conference
- 2018 : (Nominated) The Nature Conservancy Staff Enrichment Conference. Nebraska City, NE
- 2018 : Pennsylvania GIS Conference
- 2018 : Pennsylvania Land Conservation Conference
- 2017 : Pennsylvania Land Conservation Conference
- 2016 : East Tennessee Geographic Information Council Conference

**Workshops and Trainings Instructed:**

- 2019 : “An Introduction to ArcGIS Pro” – The Nature Conservancy.
- 2019 : “An Introduction to ArcGIS Online & Collector” – The Nature Conservancy.
- 2019 : “Mobile Monitoring for Preserve Management” – The Nature Conservancy.
- 2018 : “Stream Monitoring Information Exchange Volunteer Training” – Environmental Quality Institute.

**Professional Affiliations:**

- Member, American Association of Geographers (AAG)
- Member, Cultural and Political Ecology AAG Specialty Group
- Member, Canadian Association of Geographers (CAG)
- Member, Gamma Theta Upsilon (international geographic honors society)
- Member, Gold Key International Honors Society
- Co-Chair, 2018 – 2019, Young Emerging Professionals Geospatial Roundtable (Nature Conservancy)
- Member, 2018 – 2019, Delaware River Watershed Initiative GIS Working Group
- Member, 2018, People’s Survey Workplace Improvement Committee (Nature Conservancy)

**Additional Training:**

- High Accuracy RTK/GPS Field Data Collection – ESRI/Anatum Geomobile Solutions – 2019
- Highly Effective Teams – The Nature Conservancy – 2018
- GIS and Database Fundamentals Boot Camp – U.S. National Park Service – 2016
- Tools of Watershed Management – University of North Carolina – 2016
- Adult and Pediatric First Aid/CPR/AED – American Red Cross – 2016
- Wilderness First Aid – SOLO Southeast – 2016
- Community Emergency Response Team (CERT) – Federal Emergency Management Agency – 2016

**Technology Proficiency:**

- NVivo 12
- ArcGIS Pro 2.5 & Desktop 10.7
- ArcGIS Online
- Collector for ArcGIS
- Survey 123
- Avenza Maps
- OpenStreetMap
- Google Earth
- MapBox (basic)
- amCharts (basic)
- HTML/CSS scripting (basic)
- MySQL (basic)
- Garmin/Trimble GPS data collection
- Microsoft Office Suite
- GIMP
- Adobe Illustrator