

## Julian Florez

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Research Interests	Sustainability (energy, mobility, built environment). Technoeconomic and optimization models. Industrial operations, supply chains. Low- and negative-emission technologies and systems. Collective dynamics, complex systems.	
Education	B.S.E Industrial Operations Engineering, University of Michigan Minor: Complex Systems, GPA: 3.814 Emphasis in sustainability and energy	2019 - present
Professional Experience	Researcher, <i>University of Michigan Ann Arbor: Innovation for Impact, Climate Change</i> <ul style="list-style-type: none"><li>Selected for the Center of Entrepreneurship's yearlong 2022 Climate Change course, I will gain formal training on CCUS technologies and the financial landscape while conducting research with an emerging startup to incorporate geothermal technologies into their industrial optimization decision model.</li></ul>	2022
	Research Intern, <i>Boundless Impact Research &amp; Analytics</i> <ul style="list-style-type: none"><li>Researched emerging sustainable technologies across diverse industries to write and present professional annual industry financial briefs to a hub of impact leaders at a sustainability-oriented and life cycle assessment investment firm.</li></ul>	Fall 2021
	Undergraduate Complexity Researcher, <i>Santa Fe Institute</i> <ul style="list-style-type: none"><li>Selected to be in the Undergraduate Complexity Research Program (formerly REU). Collaborated with faculty and PhD members on a self-created research project utilizing Tableau and R on <i>The Dynamics of Company Waste with Analysis on Environmental Impact Scaling</i>.</li></ul>	Summer 2021
	Lab Researcher II, ASSET Lab, <i>University of Michigan Ann Arbor</i> <ul style="list-style-type: none"><li>Researched, designed, and developed a multi-objective optimization model in Python incorporating workforce analysis analyzing the retirement of coal plants in the United States. Project was handed off to two graduate students and received funding from the Idaho National Laboratory for further development.</li></ul>	2021
	Staff Writer, <i>Michigan Journal of International Affairs</i> <ul style="list-style-type: none"><li>Staff writer in the Europe region covering technical sustainability topics with a geopolitical perspective. Recent pieces include analysis of the world's first energy island in Denmark and the development of hydrogen in Europe.</li></ul>	2021
	Lab Researcher I, ASSET Lab, <i>University of Michigan Ann Arbor</i> <ul style="list-style-type: none"><li>Conducted research on renewable energy capacity values in a <i>National Assessment of Wind and Solar Resources</i>. Created a realistic Python power system model, collaborated across technical disciplines, and synthesized results into a peer reviewed research paper.</li></ul>	2019-2021
	Software Intern, <i>Microsoft</i> <ul style="list-style-type: none"><li>Served alongside software engineers, attorneys, and product managers to identify product data blind spots in the Microsoft Office division and create and deploy a widely adopted (200k+ downloads) open-source user-friendly telemetry package.</li></ul>	Summer 2019

Publications & Reports	<p>2021</p> <p>Bromley-Dulfano, I., <b>Florez, J.</b>, &amp; Craig, M. T. (2021). Reliability benefits of wide-area renewable energy planning across the Western United States. <i>Renewable Energy</i>, 179, 1487-1499.</p> <p><b>Florez, J.</b> (Winter 2021) <a href="#">Shifting Winds of Power</a>. <i>Michigan Journal of International Affairs</i>.</p>														
Research Presentations	<p>2021</p> <p><b>Florez, J.</b> The Dynamics of Company Waste with Analysis on Environmental Impact Scaling <i>Santa Institute REU Research Talk</i>. Santa Fe, NM</p> <p>Bromley-Dulfano, I. <b>Florez, J.</b>, &amp; Craig, M. T. Reliability benefits of wide-area renewable energy planning across the Western United States. <i>International Symposium on Sustainable Systems and Technology</i>. Portland, OR</p> <p>Bromley-Dulfano, I. <b>Florez, J.</b>, &amp; Craig, M. T. Reliability benefits of wide-area renewable energy planning across the Western United States. <i>Michigan University-wide Sustainability and Environment Conference</i>. Ann Arbor, MI</p> <p>Bromley-Dulfano, I. <b>Florez, J.</b>, &amp; Craig, M. T. Reliability benefits of wide-area renewable energy planning across the Western United States. <i>University of Michigan Engineering Research Symposium</i>. Ann Arbor, MI</p> <p>Bromley-Dulfano, I. <b>Florez, J.</b>, &amp; Craig, M. T. Reliability benefits of wide-area renewable energy planning across the Western United States. <i>University Research Opportunity Program Summer Symposium</i>. Ann Arbor, MI</p>														
Honors & Achievements	<table> <tr> <td>Innovation for Impact: 2022 Climate Change <a href="#">Cohort</a> member</td><td>2022</td></tr> <tr> <td><a href="#">Emerging Leader</a> Verge 21, GreenBiz</td><td>2021</td></tr> <tr> <td>University Research Blue Ribbon Award, University of Michigan</td><td>2021</td></tr> <tr> <td>Boeing Industry Merit Scholarship</td><td>2020-2021</td></tr> <tr> <td>Alumni Merit Scholarship</td><td>2019-present</td></tr> <tr> <td>Dean's List, University of Michigan</td><td>2019-present</td></tr> <tr> <td>Office Add-ins Telemetry <a href="#">package</a>, Microsoft</td><td>2019</td></tr> </table>	Innovation for Impact: 2022 Climate Change <a href="#">Cohort</a> member	2022	<a href="#">Emerging Leader</a> Verge 21, GreenBiz	2021	University Research Blue Ribbon Award, University of Michigan	2021	Boeing Industry Merit Scholarship	2020-2021	Alumni Merit Scholarship	2019-present	Dean's List, University of Michigan	2019-present	Office Add-ins Telemetry <a href="#">package</a> , Microsoft	2019
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Languages & Skills	<p>Software Development and Data Analysis:</p> <ul style="list-style-type: none"> <li>• C++, Python, Java, R, Tableau, Typescript</li> </ul> <p>Languages:</p> <ul style="list-style-type: none"> <li>• English: Native</li> <li>• Spanish: Basic</li> <li>• German: Beginner</li> </ul>														