My background

Bachelor of Science in Applied Physics

My background

Bachelor of Science in Applied Physics

My background in research internships

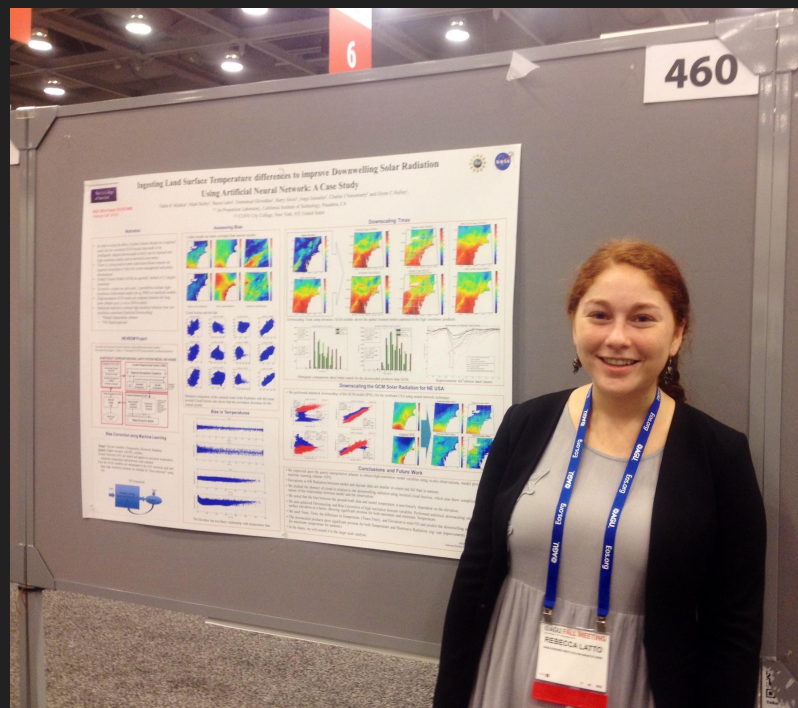**Intern**
NASA - National Aeronautics and Space Administration
Jun 2013 – Aug 2014 · 1 yr 3 mos
New York, New York

Student Research Assistant
NASA - National Aeronautics and Space Administration
Oct 2016 – May 2019 · 2 yrs 8 mos
New York, NY

Research Assistant
Simon Fraser University

Research Intern
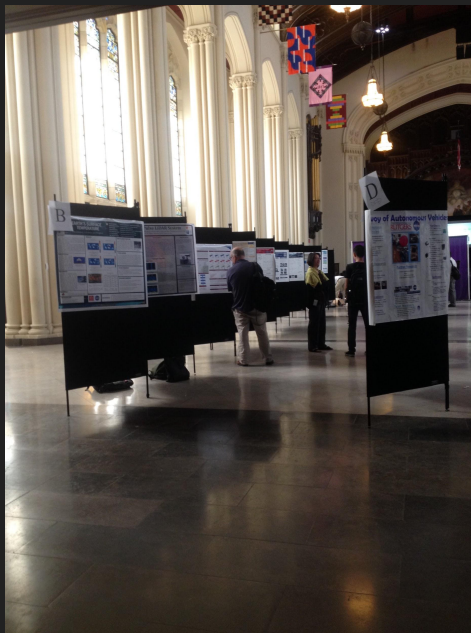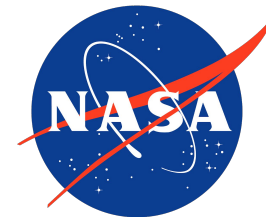University of Tasmania
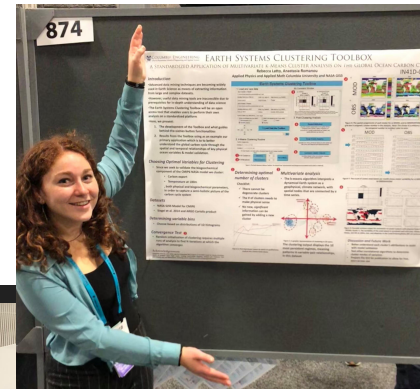Sep 2019 – Present · 2 mos
Tasmania, Australia

Student Research Assistant

NASA - National Aeronautics and Space Administration

Oct 2016 – May 2019 · 2 yrs 8 mos

New York, NY

Conduct climate research using cluster analysis
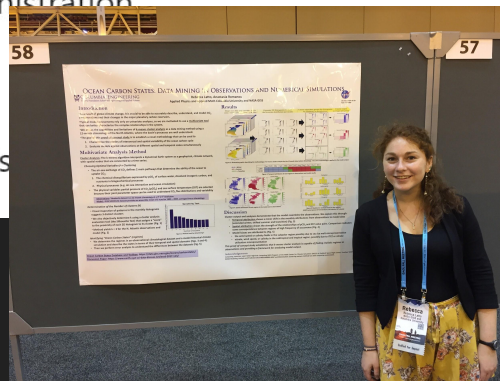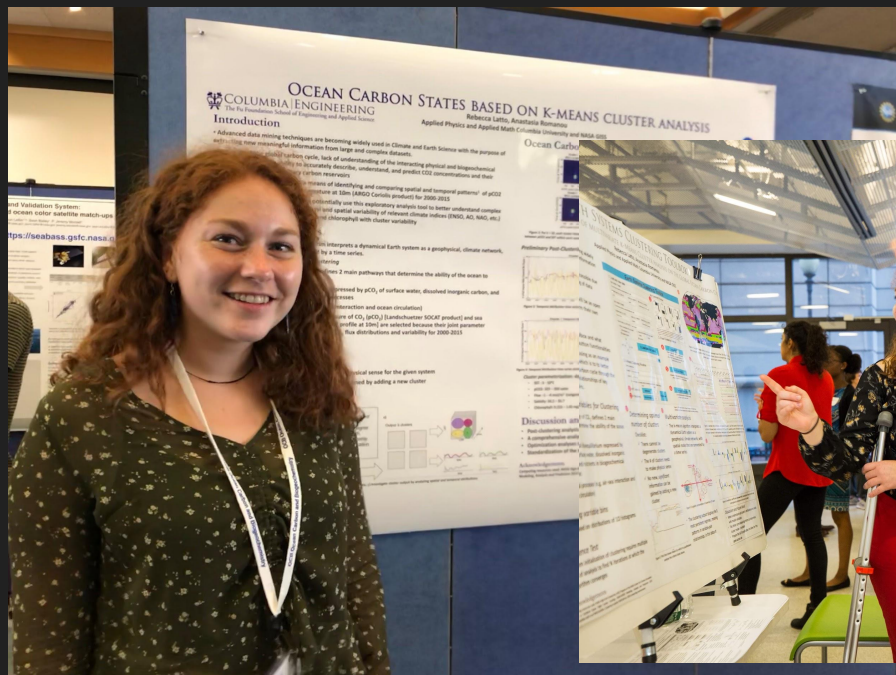
Research Assistant

Simon Fraser University

Jun 2019 – Aug 2019 · 3 mos

Vancouver, Canada Area

SFU

Canada
- International Boundary
- Province Boundary
- Road
- River
- ★ National Capital
- ● Province Capital
- ○ City or Town

ARCTIC OCEAN

GREENLAND

U.S.A.

YUKON TERRITORY

NORTHWEST TERRITORIES

NUNAVUT

BRITISH COLUMBIA

ALBERTA

SASKATCHEWAN

MANITOBA

ONTARIO

QUEBEC

NEWFOUNDLAND AND LABRADOR

Victoria, Vancouver, Seattle, Portland

Research Intern
University of Tasmania
Sep 2019 – Present · 2 mos
Tasmania, Australia
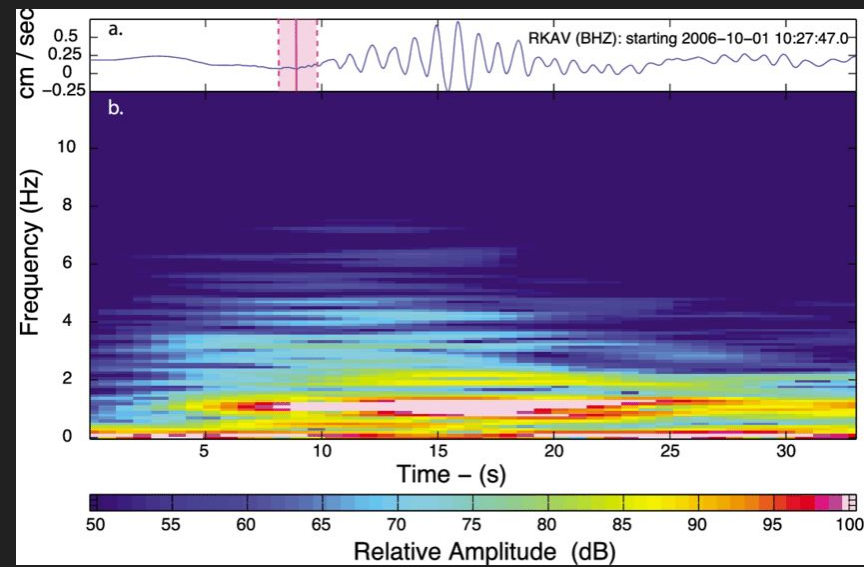
Project Intern

The Skyscraper Museum

May 2016 – May 2017 · 1 yr 1 mo

New York, NY

Assist with family programs when children come to the museum every other Saturday to learn about our exhibit and do activities, lead museum tours, conduct research for architecture papers, and handle front office work like booking tours, organizing, and answering phones.

Office Assistant

Le Fat Poodle and Le Penguin

May 2015 – Aug 2015 · 4 mos

Handled phone and online reservations, calculated tip distribution and payroll, and organized invoices.

Building your personal research brand

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Add profile section More...

Rebecca Latto

Research Intern at University of Tasmania

New York, New York · 192 connections · Contact info

University of Tasmania

Columbia University, Columbia School of...

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10/26/2019

Building your personal research brand

Building your personal research brand

Rebecca Latto

EDUCATION

Columbia University, Fu Foundation School of Engineering and Applied Science, New York, NY.
Bachelor of Science in Applied Physics, focus in Earth and Atmospheric Sciences, **Graduation May 2019.**
Coding experience: MATLAB; Unix programming; Java; Python; Fortran; Perl; HTML; Javascript; CSS
Relevant coursework: Glaciology; Solid Earth Dynamics; Chem. & Phys. Oceanography; Deformation; Death Valley

WORK AND LEADERSHIP EXPERIENCE

NASA
Goddard Institute for Space Studies
Student Research Assistant, New York, NY (*Fall 2016 – present*) *[20h/wk acad. yr./ full time summers]*
- Investigate the advantages of machine learning and cluster analysis as means of resolving complex patterns in big data in order to study the ocean carbon cycle and other complex nonlinear Earth systems.
- Perform model diagnostics on the GISS Earth System Model to prepare for CMIP6 production.
- Constructed a toolbox to facilitate the standardization of cluster analysis on any Earth Science field.
- Shared and articulated research goals at over 10 oral and poster presentations at Earth Science conferences, data science symposiums, and early career scientist showcases, including AGU, Ocean Sciences, and Data Science Day.
- **Latto, R.** and Romanou, A., 2018: The "Ocean Carbon States" Database: A proof-of-concept application of cluster analysis in the ocean carbon cycle. Earth Syst. Sci. Data, https://doi.org/10.5194/essd-10-609-2018.

Columbia Spectra: Society for Diversity & Inclusion in Physics, President (*2018-present*), Coordinator (*2017-18*)
- Expanded Columbia's Society for Women in Physics to include all underrepresented minorities in physics.
- Built a student board of Graduate and Undergraduate Chairs.
- Increased club membership from 10 to 80 official club members from each of Columbia's schools from a wide array of physics and engineering undergraduate and graduate programs.
- Constructed a new, easy-to-use website to improve communication of events and share available resources.
- Wrote grants to increase funding: Gained Activities Board at Columbia recognition and access to $1000 of funding (2018); Awarded American Physical Society Women in Physics Group Grant for $1000 (2018)
- Coordinator of activities and outreach events for underrepresented groups in physics to foster a community.
- Assembled a list of faculty and professional advisers at Columbia and in the NYC area for club member outreach.
- Streamlined communication between administration and student body to better resolve existing problems.

Society for Physics Students, Secretary (*2017-present*)
- Correspond weekly with club members to inform about events and meetings on campus.

American Museum of Natural History, Sleepover Volunteer, New York, NY (*Spring 2018-present*)
- Lead craft activities in the Hayden Planetarium with NYC children ages 3-12 and informal tours for adult sleepovers.

Reading Math Team, Tutor (*2017-2018*)
- Tutored weekly in a Harlem-based math afterschool program for kindergarteners.

The Skyscraper Museum, Project Intern, New York, NY (*May 2016 – Mar 2017*)
- Led museum tours and family programs, conducted research, and handled front office work.

Building your personal research brand

"A resume is a marketing document and a concise, tailored summary of your experience, education, and skills. A CV is a complete record of your academic and professional achievements, typically used for positions in academia."

https://www.careereducation.columbia.edu/topics/resumes-cvs

Rebecca Latto

EDUCATION

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Coding experience: MATLAB; Unix programming; Java; Python; Fortran; Perl; HTML, Javascript, CSS; R.

AREAS OF RESEARCH INTEREST

Applying techniques such as machine learning, pattern recognition, data mining, and other advanced statistical methods to better understand big data of complex and nonlinear geophysical systems such as the ocean carbon cycle and the cryosphere.

RESEARCH AND WORK EXPERIENCE

Institute for Marine & Antarctic Studies, Visiting Research Student, Hobart, TAS, Australia *(Sept – Dec 2019)*
- Study snow densification using seismic wave speeds to better understand physical processes
- Perform machine learning on glacier signals as means of parsing dynamical systems by their primary modes.

Simon Fraser University, Visiting Research Student, Vancouver, BC, Canada *(June – Sept 2019)*
- Studied the contributions of climate versus internal dynamics to observed glacier thickness changes in the St. Elias Mountains of Yukon over the last decade using ice-penetrating radar data and observational surface velocity fields to construct "measured" flux profiles through flux gates to compare with balance fluxes.
- Facilitated with fieldwork in Yukon to obtain sub/englacial data using ground and ice penetrating radar systems.

NASA Goddard Institute for Space Studies, Research Assistant, New York, NY, USA *(Fall 2016 – May 2019)*
- Worked 20h/week in the academic yr. and 35h/week in summers.
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- Shared and articulated research goals at over 10 oral and poster presentations at Earth Science conferences, data science symposiums, and early career scientist showcases.

LEADERSHIP AND SERVICE

Wilderness Society of Tasmania Stall Helper at Salamanca Market, Hobart, Tasmania *(Fall 2019- present)*
- Share information on active campaigns to protect forests and wildlife in Tasmania.

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PUBLICATIONS

Latto, R. and Romanou, A., 2018: The "Ocean Carbon States" Database: A proof-of-concept application of cluster analysis in the ocean carbon cycle. Earth Syst. Sci. Data, https://doi.org/10.5194/essd-10-609-2018.

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Young, E., Flowers, G. E., Berthier, E., **Latto, R.**, "Detection and attribution of Kaskawulsh Glacier thinning, southwest Yukon, Canada, 2007-2018." Accepted for AGU Fall Meeting, 2019.

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Latto, R. (primary convener), Romanou, A., Landschuetzer, P., Telszewski, M., Gregor, L. "Novel data analysis techniques for big data applications in marine science." Poster session for AGU Fall Meeting, Dec. 2018.

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RELEVANT COURSEWORK

Courses: Crustal Deformation; Physical and Chemical Oceanography; Solid Earth Dynamics; Ordinary and Partial Differential Equations; Earth & Environmental Engineering Lab; Glaciology; fieldwork program in undergraduate studies to study geophysics and geology in Death Valley, California *(Spring, 2017)*.

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Building your personal research brand

Knowing where to look

1st step: Universities in your area

- Find seminar schedules online
- Meet with professors
- Check online opportunities on the university website
- Ask around to see if anyone needs summer lab assistants, research hands, etc

www.pathwaystoscience.org

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AGEP Pathways & Connections

Maine STEM

NASA One Stop Shop Initiative

Pathways to Engineering

Pathways to Ocean Science

View IBP's Project Portfolios

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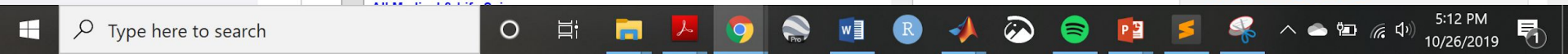
Opportunities

If you are interested in graduate studies and your research interests lie within the scope of the current research program, please send an e-mail inquiry to Dr██████ ████████ and include your CV and transcripts. Inquiries are welcomed from students of a variety of science backgrounds, including earth sciences, physics, applied mathematics and engineering. Prospective students must have at least the equivalent of university-level calculus and physics. For more information about applying, see ████████ Graduate Program.

Knowing where to look

Email listservs

Networking

Networking = talking to people who can help you do what you want to do

- Emailing professors/ scientists who are in positions you want to be in one day!
- Talking to students (like me and Albert!) because we know who you should reach out to/ can help you along your path!

- *Hi Dr. _____, My name is Becca and I am in Grade 10 at ____ school, beginning to think about my next steps. I found your email on the university site while looking for research in ____, and I was really interested in your work with ____. Are you available to meet sometime next week, anytime after ____, to discuss your research and any advice you might have?*

  Thank you for your time!

- *Hi Becca! I really really enjoyed your presentation!! I'm very interested in glacier physics! Blah blah blahhhhhh*

Networking

Have interests outside of research!!!

❖ Clubs (e.g. Spectra, Kelas Daring IELTS 2019 - NTT)
❖ Hobbies!
❖ Community service

Questions?

How to reach me:

Email- RL2797@columbia.edu

Feel free to ask for my resume, CV templates, past emails I've sent to professors, etc! :)