202610\_GR\_G **Application Not Verified** Application: Iteration Name: Grad Program Applying To: MES MES Program Name: Recommendation Information Recommended By: Elizabeth Moore Recommenders Title: Research Scientist Recommenders Institution: Massachusetts Institute of Contact Name: Technology Alexandra Chua Waive Access to Recommendation Waiver I choose to waive my right to Recommendation Ltrs: review this recommendation. Choice: Recommendation Form Recommendation Status: Received Submitted: Received Date: 11/27/2024 06:06 AM Recommender Assessment: I recommend this applicant. Recommendation Type: General Recommender Form: Letter of Recommendation Recommendation Entity ID: 1024000121262864 Recommendation Owner: Josephine Bernier Recommender Form Questions How long have you known Applicant ability as applicant: self-directed learner: Time since last contact with Applicant as productive applicant: member of group: Relationship with Applicant: Applicant most significant strengths: Ability to complete rigourous Responsibility/reliability: grad program: Communication Skills - Oral: Communication skills written: Service Ability to work independently: Orientation-sensitivity/empathy: Ability to handle stress: Ability to think critically:

Ability to analyze/problem Ability to think creatively: solve:

Openness to feedback: Potential for leadership: Personal/professional Ability to work in a team: reflection:

**Description Information** 

Description: Form URL: https://evergreenstatecollege.radius

Other Information

Created Time: 11/24/2024 11:43 PM Created By: Josephine Bernier Modified Time: 11/27/2024 06:06 AM Modified By: Josephine Bernier Elizabeth A. Moore Research Scientist Material Systems Laboratory E-mail: eamoore@mit.edu



MIT / Room E19-695 77 Massachusetts Ave. Cambridge, MA 02139-4307 Tel: (973)-219-5181

11/27/2024

Dear Evergreen State College Admissions Committee,

Please accept this letter as a recommendation for Alexandra Chua for admission to your Master's in Environmental Science program.

I was one of Alex's Undergraduate Research Opportunity Program (UROP) research mentors with the MIT Climate & Sustainability Consortium this past summer. The goal of our research project was to apply spatial-economic modeling to understand carbon capture, transport, and storage (CCS) strategies for hard-to-abate industries such as the cement, chemicals, and steel industries. Alex was instrumental in leading the geospatial analysis for exploring the potential of a large-scale pipeline network based around the location of "carbon hubs," or collections of nearby industrial facilities. She was quick to jump in and learn as much as she could about ArcGIS and learned how to apply advanced techniques such as the Network Analyst tool to compare the difference between different types of carbon transport (e.g., pipeline and truck). Alex also helped develop cost modeling methods to determine the cost of forming carbon hubs around hard-to-abate industries. Using her past statistical modeling experience, she recommended improvements to the existing methodology for estimating pipeline costs for varying pipe diameters. She even assisted with the literature review and writing for a peer-reviewed publication that will be submitted to the Nature Sustainability journal.

Alex is hard-working, dedicated, and resourceful. She always meets her deadlines for project deliverables and does her best to go above and beyond to further research efforts. When she doesn't know an existing modeling method, she isn't afraid to find resources to teach herself. In addition to pursuing her sustainability and ecology research interests through UROP projects, she also served as an Environmental Health and Safety Assistant on campus throughout her tenure at Wellesley College to address health and safety concerns across campus. She's participated in several courses and labs to develop field skills and to further advance these skills, she is currently a research technician for a quail research team. Alex's eagerness to learn and adapt highlights her ability to thrive in diverse environments and collaborate effectively with teams from various backgrounds.

Alex has been an asset in our lab this past summer where she helped to conduct thorough and insightful research and even developed a standard operating procedure for the spatial modeling methods to ensure that it is as easy as possible for subsequent students to continue the research effort. She has excellent interpersonal and communication skills as shown by her ability to present complex methods to other students and researchers in the MIT UROP program. Alex has consistently demonstrated exceptional independent research skills, showcasing a high level of analytical thinking, communication, and dedication that places her in the top 10% of students I have had the opportunity to mentor. Her work ethic, communication skills, and passion for research are unmatched and she will be a strong asset to the program.

Best regards,

Elizabeth A. Moore Research Scientist, MIT