

ALBERT TRES VILANOVA

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EDUCATION

University of Waterloo

Sep 2022 - Current

MMath in Applied Mathematics

- Relevant Coursework: Applied Functional Analysis, Numerical Analysis, Control Theory, Filtering and Control of Stochastic Linear Systems

University of California, Berkeley

Aug 2017 - May 2021

B.A. in Mathematics

- Relevant Coursework: Calculus I, II, III; Linear Algebra I, II; Real Analysis; Numerical Analysis; Ordinary Diff. Eq.; Calculus of Variations & Optimal Control Theory; Optimization Theory; Probability; Statistics; Game Theory; Complex Analysis; Algebra; Logic; Programming for Mathematical Applications
- Additional Coursework: Mandarin, Modern Philosophy, Intro to Computer Science, Human-Centered Design

WORK AND RESEARCH EXPERIENCE

UC Berkeley Math Department

Berkeley, CA

Researcher

April 2021 - Oct 2021

- Wrote and implemented an algorithm on MATLAB to simulate quantum-classical dynamics for research paper co-authored with Dr. Di Fang, to be published in SIAM Journal of Numerical Analysis

Tutoring

Washington, DC

Math/Physics/French

Jan 2016 - Sept 2018, Aug 2021 - July 2022

- Designed and implemented results driven lesson plans for middle and high school students to gain a deeper understanding of material and succeed at end of the year exams

UC Berkeley Library

Berkeley, CA

Student Cataloger

March 2018 - Feb 2021

- Catalogued books into the University's digital database using Millenium and OskiCat and supported staff and managers with book queries

Bechtel

Reston, VA

Knowledge Management Intern

May 2016 - June 2016

- Created presentation for the company's Head of Gov. Affairs recording best practices from past projects

LEADERSHIP AND EXTRACURRICULARS

Garb Fashion Editorial

Berkeley, CA

Co-President, Creative Director, Writer

Sep 2017 - Dec 2019

- Led a group of 40 people and organized 3 events to promote sustainable fashion practices on campus
- Managed a budget of \$2,500 and fundraised \$1,000 through clothing and merch sales
- Connected global fashion news with campus events and trends in digestible articles. Readership 8,000+

Bridge Builders

Washington, DC

Co-Founder and Co-President

Sep 2015 - May 2017

- Built organization's web page to state mission, set up fundraisers and showcase results

SKILLS AND INTERESTS

- **Languages:** Native in English, French, Spanish and Catalan. Beginner in Mandarin
- **Technical:** Python, Matlab, Julia, LaTeX, R, Photoshop, Microsoft Office Suite, Millenium
- **Interests:** Reading Fiction, Narrative Journalism, Film, Soccer, Tennis