# J. BLAKE BULLWINKEL

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#### **EDUCATION**

Harvard University, Cambridge, MA

Expected June 2022

S.M. in Data Science

Relevant coursework: Data Science I, Artificial Intelligence, Systems Development, Environmental Modeling.

Williams College, Williamstown, MA

June 2020

B.A. in Mathematics and Chinese. GPA 3.83/4.0 (cum laude)

University of Oxford, Oxford, UK

June 2019

Attended as a visiting student as part of the selective, year-long Williams-Exeter Program at Oxford.

UWCSEA (East Campus), Singapore

June 2016

IB Diploma. Highest grade (7) in HL math, physics, chemistry, Chinese. Class of '16 Graduation Student Speaker.

#### **EXPERIENCE**

Marble, remote, Co-Founder

Summer 2020

Designed and developed a React Native eco-social app for iOS and Android. Uses phone sensor API data to estimate carbon footprint from travel, allowing users to offset emissions and share their progress with friends.

Institute for Human and Machine Cognition, Pensacola, FL, Data Science Intern

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Research internship at IHMC. Used Python for data cleaning, database management and data visualization to analyze flight simulation data and correlate psychophysiological indicators in pilots with flight performance.

Zola Electric, Amsterdam, Netherlands, Digital Platforms Intern

Summer 2019

Paid internship with Zola Electric, a tech startup providing solar energy access solutions to sub-Saharan Africa. Included 1) product and sales model market research and presentation of recommendations to global team and 2) data analysis using SQL to investigate transaction delays and improve efficiency of Zola's software platform.

Bill & Melinda Gates Foundation, Beijing, China, Policy Intern

Summer 2018

Prepared research reports in Chinese on scaling development-related best practices from China across Africa.

Williams College, Williamstown, MA, Chinese Teaching Assistant

Sept 2017 to May 2020

Selected by Chinese department to act as a salaried assistant to professors through 1:1 tutoring sessions.

#### **SELECTED PROJECTS** (see more at blakebullwinkel.com)

Modeling Electricity Consumption in the US, Williamstown, MA

May 2020

Used MLR in R to predict household electricity consumption in the US from various residential characteristics.

Early Epidemiological Model Parameters for COVID-19, Williamstown, MA

February 2020

Used Python to model early-stage COVID-19 case data in mainland China using a system of ODEs.

"Optimize Your 32" Course Selection Tool, Williamstown, MA

Nov 2019

Used Google's OR-Tools Python package to solve course selection at Williams as a linear programming problem.

## LEADERSHIP AND EXTRACURRICULAR

Exeter College Boat Club, Oxford, UK, Men's Captain

Nov 2018 to June 2019

Elected to lead the Exeter College Boat Club as the men's rowing captain, attending meetings with the rest of the executive committee, collaborating with coaches to organize training and selecting crews for regattas.

Williams Men's Crew (Varsity Rowing)

Sept 2016 to June 2020

Putnam Competition, ranked 627/4,229 among undergrads specializing in mathematics.

Dec 2019

### HONORS AND AWARDS

Goldberg Prize in Mathematics for the best senior colloquium (department-wide senior prize)	2020
Linen Prize in Chinese for achieving distinction in Chinese (department-wide senior prize)	2020
Carolyn Korthals Altes Scholarship for academics and potential to contribute to society	2019
Williams College Alumni Sponsored Internship (ASIP) Grant	2019

#### SKILLS AND INTERESTS

Working proficiency in Chinese (Mandarin); proficiency in Python, R, SQL, Javascript, HTML/CSS, LATEX. Coding projects (Github account). Writing (Medium blog). Rubik's Cube Solving (WCA profile).