

Garrett Bingham

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EDUCATION

YALE UNIVERSITY '19

B.S. COMPUTER SCIENCE & MATH

GPA: 3.87 | New Haven, CT

WEBER HIGH SCHOOL

Class of 2015 Valedictorian

GPA: 4.00 | Pleasant View, UT

HARVARD UNIVERSITY

SECONDARY SCHOOL PROGRAM

GPA: 4.00 | Cambridge, MA

COURSEWORK

COMPUTER SCIENCE

Systems Programming &
Computer Organization
Computational Vision &
Biological Perception
Data Structures &
Programming Techniques

MATHEMATICS

Abstract Algebra
Topics in Analysis
Discrete Mathematics
Probability Theory
Linear Algebra & Matrix Theory
Multivariable Calculus

SKILLS

PROGRAMMING

Experienced (500-1000 lines):

C • Python • R • \LaTeX

Familiar (200-500 lines):

MATLAB • Java • HTML/CSS

Racket • Autotl3

LANGUAGES

English Native

Spanish ILR Level 2

OTHER

Will spend spring 2018 abroad studying computer science at Aquincum Institute of Technology in Budapest, Hungary.

Spent summer 2016 in Bilbao, Spain studying Spanish language and culture.

Received Boy Scouts of America's Eagle Scout Award.

PUBLICATIONS

Bingham, Garrett. "Random Subspace Two-Dimensional LDA for Face Recognition." ArXiv.org e-Print Archive, 2017, goo.gl/cPMzF4.

- Developed RS-2DLDA, a novel machine learning algorithm for computer face recognition, which outperformed similar published algorithms on two datasets.

Bingham, Garrett, et al. "MORPH-II: Inconsistencies and Cleaning Whitepaper." North Carolina Digital Online Collection of Knowledge and Scholarship, 2017, libres.uncg.edu/ir/uncw/listing.aspx?id=22243.

- Fixed 1,800 errors in 55,000 entry dataset missed by prior published research.

CONFERENCES

COUNCIL ON UNDERGRADUATE RESEARCH

RESEARCH EXPERIENCES FOR UNDERGRADUATES SYMPOSIUM

(CUR REUS) | Oct 22-23, 2017 | Westin Alexandria | Alexandria, VA

- Presented poster on RS-2DLDA to students, faculty, and NSF representatives.

PROJECTS

FACE RECOGNITION | www.garrettbingham.com/face-recognition

May - July 2017 | University of North Carolina Wilmington | NSF REU

- Presented research poster to 80+ UNCW faculty and students, in addition to weekly Beamer presentations to 10-15 people.
- Gave tutorials on RMarkdown, \LaTeX , and Two-dimensional PCA in Python to program students and faculty.
- 8 of 100+ chosen for research program, 1 of 8 for CUR REUS nomination.

WEB AUTOMATION | www.garrettbingham.com/web-automation

Created a Python script which utilized Selenium WebDriver and other libraries to automate student registration for My Tech High, an online learning provider.

SNAP | goo.gl/oC37fM

Built Windows program from Autotl3 script which makes the current window take up half of the screen to allow for easy side-by-side viewing. Particularly useful for those running Windows XP and earlier, Snap has 1,700+ downloads.

EXPERIENCE / SERVICE

CALCULUS TUTOR | Yale University | Oct 2016 - Present

Hold weekly tutoring sessions to help students in their calculus classes.

BRIDGES ESL | Jan - May 2017

Gave weekly English lessons to New Haven immigrants and international citizens.

DEMOS | Aug 2016 - May 2017

Conducted weekly science experiments with a local class of 4th graders.

DAYCARE ASSISTANT | Calvin Hill Daycare | Aug - Dec 2016

Read books, built towers, and learned how to take turns with a class of 3-year-olds.

YALE HUNGER AND HOMELESSNESS ACTION PROJECT | Jan - May 2016

Served on YHHAP fundraising board and raised awareness for YHHAP projects.

MATH TUTORING | Aug 2014 - Aug 2015

Dozens of hours of free math tutoring given in person and online.

DISCOUNT RSL TICKETS | Harrisville, UT | Mar 2013 - Oct 2014

Started own business selling soccer tickets. In the first year alone, sold 253 tickets to 85 people and made over \$2000 from an initial \$615 investment.

VANUATU | Mar - May 2014

Organized a service project that raised \$900 and collected 300 pairs of reading glasses which were sent to Vanuatu.