Marty Jiffar

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Education

University of Chicago (Chicago, IL)

Expected June 2020

GPA: 3.24/4.0

- B.A. in Statistics, Minor in Computer Science
- Honors Include: Dean's List (2017, 2018)
- Relevant Coursework: Algorithms and Data Structures, Numerical Linear Algebra, Applied Regression Analysis, Statistical Theory and Methods, Computer Systems (current), Machine Learning in Medicine (current)

Skills

- Backend: Python (NumPy, Pandas), Java, C
- Data: R, Excel, CSV/JSON manipulation
- Frontend: JavaScript, jQuery, HTML, CSS
- *Concepts:* Data structures, algorithms, complexity analysis

Work Experience

American University (Xiao Lab), Washington, DC

Computer Science Research Intern

August 2019 – present

- Built an <u>algorithm</u> in Python to randomly sample video triplets from a space of over 95 million combinations for an
 experiment studying human perception of simulated cloth videos
- Devised a metric to calculate a 'hardness score' for each trial to produce a sample with a Gaussian distribution of difficulties
- Built a <u>website</u> in JavaScript and HTML/CSS and set up a virtual private server (VPS), allowing us to administer the
 experiment at a significantly faster speed and increase our data from 1500 video triplets to the desired 5000

Digital Observers, Naknek, AK

Quality Control (QC) Technician

June 2018 – July 2019

- Enforced quality requirements regarding the chilling, bleeding, and floating of over 1 million pounds of salmon for a fleet of 200 fishermen in Bristol Bay, the world's largest sockeye salmon fishery
- Collaborated with fellow QC technicians, tender captains, and fleet managers as a team responsible for an estimated \$40 million in cannery quality bonuses to fishermen

Georgetown University (Hamilton Lab), Washington, DC

Population Genetics Research Intern

June 2015 – *September* 2015

- Performed polymerase chain reaction (PCR), gel electrophoresis, and DNA fragment analysis (using an ABI Prism 3100) to analyze and quantify genetic variation in over 400 striped bass (*Morone saxatilis*)
- Wrote a research paper, presented a <u>PowerPoint</u>, and participated in a poster session with peers to discuss my findings

Leadership Activities

College Council, Chicago, IL

Class of 2020 Representative

September 2017 – June 2018

- Won an election for class representative and voted on student government (SG) resolutions promoting student equity
- Voted to approve or disapprove funding decisions of the SG finance committee the primary funding source for registered student organizations which is responsible for disbursing nearly \$300,000 each year

Projects

Retirement Calculator

• Calculates in Python how a given retirement portfolio would have fared historically, using S&P 500 returns data, to help plan optimal savings based on the user's annual spending and retirement length

Bristol Bay Pay Day: a predictive model

• Uses ex-vessel fish prices since 1984 and various economic variables to predict how much fishermen will be paid per pound of salmon – a figure that Alaskan canneries do not release until salmon season is nearly over