Marty Jiffar

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Education

University of Chicago (Chicago, IL) *Expected June 2020*

- B.A. in Statistics, Minor in Computer Science GPA: 3.24/4.0
- *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
- *Frontend:* JavaScript, jQuery, HTML, CSS
- *Data:* R, SQL, Excel, CSV/JSON manipulation
- *Teamwork:* Git repository collaboration

Work Experience

American University (Xiao Lab), Washington, DC
Computer Science Research Intern *August 2019 – present*

- Built an algorithm 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 website 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 Observer, 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 PowerPoint, and participated in a poster session with peers to discuss my findings

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