Brayden Look

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Summary

Former digital communications and signal processing engineer pursuing an MS in Statistics. Interests in applied statistical modeling and simulation, particularly estimation problems.

Education

Colorado State University — Fort Collins, CO
Pursuing MS in Statistics — Aug 2022 - Current

UCLA — Los Angeles, CA
BS Electrical Engineering (Signals and Systems) — Graduated June 2019

Employment

The Aerospace Corporation — El Segundo, CA
Associate Member of Technical Staff — July 2019 - May 2022

As an associate MTS, my responsibilities were generally performing analysis for digital communications research questions, developing simulation tools to explore those questions, and gathering results into reports to present. This work often included:

- **Code Optimization**: Using profilers in both Python and MATLAB to determine bottlenecks and modify simulation code to speed it up for more effective analysis.
- **User Interface Implementation**: Writing and modifying multiple GUIs to make simulation tools easier for non-technical customers to use.
- **Simulation**: Writing simulation code in Python and MATLAB for end-to-end digital communications systems in order to test scenarios.
- **Documentation and Presentation**: Writing comprehensive code documentation for all of the above, as well as presenting analysis and summary of results for both technical and non-technical audiences.

Colorado State University — Fort Collins, CO
Calculus 2 Learning Assistant — Jan 2016 - May 2017

As a learning assistant for a college-level calculus 2 course, I tutored students, proctored exams/quizzes, graded, led a small discussion group, and generally gave feedback to instructors on how to improve the course.

Skills and Coursework

Programming:	MATLAB, Python, R
Relevant Courses:	Mathematical Statistics, Linear Models, Probability Theory, Optimization, Signal Processing
Clearances Active:	Secret

Some Projects and Interests

Teaching
I have experience in teaching a variety of introductory math and statistics courses, and I have more than 300 hours of paid tutoring experience. I find that helping others understand the intuition behind mathematical topics is both fulfilling and personally rewarding–you don't really understand something until you can explain it to someone who doesn't have the prerequisite knowledge!

Basketball
I'm interested in the national basketball association (NBA) and I enjoy doing statistical projects in my free time with real NBA data. Some of those projects include: a shot quality model using random forests to estimate expected field goal percentages for each player in the league, bayesian hierarchical modeling to estimate 3-point percentages for players, machine learning projects, and more.