Jeffrey Parker Burr

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EDUCATION

University of California, Berkeley | Berkeley, CA August 2016 – Present
Double Major - B. A. Applied Mathematics, B. A. Data Science GPA: 3.3

- Relevant Coursework: Date Structures and Advanced Programming, Linear Algebra, Discrete Mathematics, Concepts of Probability, Artificial Intelligence, Principles of Data Science, Financial Econ, Multivariable Calculus
- Expected Graduation: May 2020

University of Auckland – Exchange Program | Auckland, New Zealand Spring 2020

- Relevant Coursework (currently enrolled): Numerical Analysis, Algebraic Structures

Mira Costa High School | Manhattan Beach, CA August 2012 – Present

- Summa Cum Laude (Top 5%), Principal's Honors, National Honor Society GPA: 4.6

EXPERIENCE

Mammoth Mountain Ski School | Mammoth Lakes, CA December 2018 – February 2019
Ski Instructor

- Entry level ski instructor responsible for the safety and athletic development of Mammoth's clientele from ages 3 to adulthood
- Part-time rental technician required to be knowledgeable about ski fitting, repair, and tuning

Special Olympics Southern California | Los Angeles, CA June – July 2017
Workforce Management Team

- Delegated employees/volunteers to various positions and assisted with the general management of the games
- Ensured that the tournament schedule was organized and facilitated properly

SOFTWARE PROJECTS

Pacman: (Python) Constructed numerous search/decision algorithms, applying them to Pacman simulations to optimize the game score when playing against various obstacles

- Algorithms Used: BFS, DFS, Uniform Cost, A* Search, Minimax (alpha-beta pruning), Value Iteration, Q-Learning (normal, approximate, epsilon greedy), Bayes Nets (exact and approximate inference), Hidden Markov Models, Particle Filtering, Perceptrons, Neural Networks

Restaurant Map: (Python) Map of ranked Berkeley restaurants based on Yelp ratings grouped by location with k-means clustering and predicts ratings of unvisited restaurants by least-squares regression
NYC Taxi Rides: (Python) Created a linear regression model with ridge regularization and mean absolute error from NYC taxi data to predict the duration of taxi rides against a test set (97% accuracy)
Alquerque (Grid-based Board Game): (Java) Designed a strategic two player board game with accompanying GUI and made an AI player that uses minimax decision making with alpha-beta pruning

SKILLS & LEADERSHIP

- **Software Languages**: Java, Python, HTML, CSS, SQL, Scheme, R, Tableau **Libraries**: Pandas, Numpy, Sklearn, Matplotlib, Seaborn
- **Recording Secretary of Kappa Alpha Order** – budgeted and managed $50,000 per semester used for social, philanthropic, and educational events