Jacob Fein-Ashley

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Education

University of Southern California — Los Angeles, California
Ph.D. in Electrical Engineering — *Jan 2025 – May 2028*
Research focused on machine learning

Relevant Coursework: Probability for Electrical Engineers, Linear Algebra for Electrical Engineers, Financial Analytics, Topics in Stochastic Processes, Mathematical Foundations of Statistical Learning Theory, Applied Probability

University of Southern California — Los Angeles, California
MS in Electrical Engineering — *Aug 2023 – Dec 2024*
Coursework focused on machine learning and data science

Colorado School of Mines — Golden, Colorado
BS in Computer Science — *Aug 2020 – Dec 2022*
Coursework focused on mathematics and CS fundamentals

GPA: 3.80/4.00
Relevant Coursework: Machine Learning, Data Structures, Algorithms, Linear Algebra, Probability Theory, Mathematical Statistics, Operating Systems, Calculus I-III, Differential Equations, Discrete Mathematics, Software Engineering, Database Management, Multivariate Analysis, Advanced Machine Learning

Awards

2021-2022 Palantir C-MAPP Scholar

Skills

Languages: Julia, Python, C++, Java, SQL

Technologies: PyTorch, Scikit-learn, NumPy, Pandas, Matplotlib, Git, Docker

Operating Systems: Linux, Windows

Experience

Data Science Lab, USC — Los Angeles, California
Graduate Research Assistant — *May 2023 – Present*

- Researching areas broadly related to machine learning and data science.
- Collaborating with other researchers to develop new algorithms and models related to machine learning.
- Directed by Dr. Viktor Prasanna

MInDS@Mines — Golden, Colorado
Undergraduate Research Assistant — *May 2022 – Aug 2022*

- Initiated research for performance metrics of three-dimensional point clouds and meshes
- Implemented and designed an algorithm for scoring surface reconstruction meshes against respective point clouds.
- Directed by Dr. Hua Wang

Publications

- **Fein-Ashley, J.**, Ye, T., Kannan, R., Prasanna, V., & Busart, C. (2023). Studying the Effects of Self-Attention on SAR Automatic Target Recognition.
- **Fein-Ashley, J.**, Ye, T., Kannan, R., Prasanna, V., & Busart, C. (2023). A Single Graph Convolution Is All You Need: Efficient Grayscale Image Classification.
- **Fein-Ashley, J.**, Ye, T., Kannan, R., Prasanna, V., & Busart, C. (2023). Benchmarking Deep Learning Classifiers for SAR Automatic Target Recognition. 2023 IEEE High Performance Extreme Computing Conference (HPEC), 1-6.