

Education

- 2017–2021 **BS, Computer Science, Mathematical Economics**, *University of Richmond*, Richmond, VA, GPA: 3.94/4.00.
Double Major: Computer Science (Concentration: Data Science and Statistics) (*Honors*) and Mathematical Economics
Course Highlights: Artificial Intelligence, Real Analysis, Software Systems Development, Mathematical Statistics, The Mathematics of Simulation, Programming Languages, Advanced Econometrics
- Fall 2019 **Visiting Student**, *University of Edinburgh*, Edinburgh, Scotland, GPA: 4.0/4.0.
Course Highlights: Machine Learning and Pattern Recognition, Accelerated Natural Language Processing, Fundamentals of Operational Research

Publications

- WWW 2021 [Under Review] Z. Chen and J. Park, *A Probabilistic Topic Model for Cross-Cuisine and Cross-Regional Analysis of Yelp Restaurant Reviews* at 30th International World Wide Web Conference (WWW 2021)

Research Experience

- 2020–Present **Honors Thesis**, *Department of Computer Science: Dr. Joonsuk Park*, University of Richmond.
◦ Developing methods for argument mining using transfer learning and Bayesian deep learning
- Spring, Summer 2020 **Research Assistant**, *Department of Computer Science: Dr. Joonsuk Park*, University of Richmond.
◦ Developed probabilistic graphical models to perform topic modeling on online review data
◦ Implemented graphical models with collapsed Gibbs Sampling in Python and Cython
◦ Project culminating into WWW 2021 submission currently under review
- Summer 2019 **Summer Research Fellowship**, *Department of Computer Science: Dr. Prateek Bhakta*, University of Richmond.
◦ Developing algorithms towards fair and robust liver donation allocation strategies, focusing on maximum-flow algorithms and their properties
◦ Programmed simulations in Python and C++ to test developed algorithms
◦ Scrapped and cleaned medical and geographical data from publicly available sources for use in simulations
- 2018–2019 **Research Assistant**, *Department of Psychology: Dr. Cindy Bukach's Lab*, University of Richmond.
◦ Programmed experiments using Neurobehavioral Systems Presentation, Codex Superlab, and Python with the PsychoPy package which investigated the Other Race Effect (ORE) and the Angry Black Bias
◦ Performed data cleaning and analysis using Python and R
◦ Created interactive web simulations using HYPE

Work Experience

- Spring 2019 **Grading Assistant**, *Department of Computer Science*, University of Richmond.
Graded weekly homeworks and programming assignments for two sections of CMSC 221: Data Structures, taught by Dr. Jory Denny
- Spring 2019 **Grading Assistant**, *Department of Mathematics*, University of Richmond.
Graded weekly homeworks for two sections of MATH 240: Linear Algebra, taught by Dr. William Ross
- Summer 2017 **Information Technology Support Staff**, *Arlington Central School District*.
Assembled, repaired, reimaged, and pushed software updates through computer systems throughout the school district

Projects

- Spring 2020 **Adversarial Search in Chess:** Formulated chess as an adversarial search problem and implemented the H-Minimax with Alpha-Beta pruning algorithm to determine the best move to take (CMSC 395, Artificial Intelligence, University of Richmond)
- Fall 2019 **Predicting relative locations of CT slices on axial axis:** Compared performance of predicting relative locations of CT scan slices from UCI Machine Learning Repository using simple neural networks, logistic regression, linear regression, and Principal Component Analysis (INFR11130, Machine Learning and Pattern Recognition, University of Edinburgh)
- Fall 2019 **Exploring distributional similarity in Twitter:** Reduced the dimensionality of Twitter data to see if adequate similarities between words were maintained (INFR11125, Accelerated Natural Language Processing, University of Edinburgh)
- Spring 2019 **CPU pipelining:** Simulated pipelining of MIPS assembly instructions in the CPU with optimizations in C++ (CMSC 301, Computer Organization, University of Richmond)
- Spring 2019 **Distance Viewing Toolkit (dvt):** Tested toolkit of large scale computer vision algorithms for cultural analysis (CMSC 340, Independent Study, University of Richmond)

Honors

- 2017–2021 **University of Richmond Science Scholar Award:** full tuition merit scholarship for 4 years
- 2017–2021 **National Merit Scholarship**
- 2017 **National AP Scholar**
- 2016 **Most Interesting Hack** at Vassar College Hackathon