RYAN J PARK

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EDUCATION

University of Texas | **Austin, TX**
Majors: Computer Science (Polymathic Honors) & Aerospace Engineering
Graduating: May 2025

Programming Languages
Languages: Python, Java, C/Linux, Objective C/C++, Swift, Assembly, SQL, JavaScript, Typescript, Docker
Technologies: Github, Jupyter Notebook, SSH, HTTP, Xcode, PyTorch

PROFESSIONAL EXPERIENCE

Boeing
May – August 2022

- Worked on app development and data science. Wrote multiple production release features and two ML algorithms: 1) Comment moderation on top of OpenAI, 2) Custom gradient descent tool for fine-tuning aircraft attitude calculations.

RESEARCH

Kushara Gupta's Research Project (Sept 10, 2023 - Present)

- Working in a team led by Kushara and supervised by Ph.D. candidate Adam Thorpe in creating a machine learning model to learn dynamic vector spaces. Will release a paper as a co-author.
    - Used kernel methods to develop a model with faster turnaround and smaller data requirements than neural ODE solvers.

Aditya Panigrahi's Research Project (Jan 10, 2023 – Present)

- Working in a team under Ph.D. candidate Aditya Panigrahi in creating a machine learning model to calculate heat and mechanical strain on aircraft exterior. Will release a paper as a co-author.
    - Research as a part of NASA University Leadership Initiative, the FAST Project.

Daniel Tu's Research Project (Aug 10, 2022 – Jan 1, 2023)

- Working in a team under doctoral candidate Daniel Tu in optimizing sensor data collection
- Worked very significantly with electrical hardware.

Patrick Mortimer's Research Project (March 10, 2022 – September 10, 2022)

- Worked in a team under Ph.D. candidate Patrick Mortimer in optimizing co-axial rotor data collection, including modeling and data processing.
- Also designed/fabricated blade sensors.

CLUBS

Texas UCF

- Joined Texas UCF, a student-run organization that manages a portfolio of equities and equity options. Wrote 'Market Watches', delivered pitches, and implemented algorithms to profit by making markets.
- Implemented multiple technical projects
    - Proved existence of a Nash equilibrium between technical and fundamental traders via experimental data.

CLASSWORK

Computer Science
Coursework: Linear Algebra, Statistics, Data Structures, Discrete Math, Computer Architecture, Operating Systems, Algorithms & Complexity, Software Engineering
Projects:

- Wrote several ML algorithms
    - Cancer classification on public medical data using regression.
    - Wrote decision trees and simple neural networks from scratch (including back-prop).
    - Worked on numbers and letters with a KNN machine learning algorithm for classification
- Wrote several projects to demonstrate understanding of coursework:
    - Efficient memory management system | *C*
    - CPU pipelining (y86) + caching | *C*
    - File compression system (Huffman) | *Java*
    - PintOS | *C*