Alexander Parks

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EDUCATION

The University of Texas at Austin, Austin, TX — August 2021 - May 2025 (expected)
Bachelor of Science, Computer Science and Mathematics

- GPA: 3.82
- Relevant Coursework: Principles of Machine Learning I/II, Neural Networks, Trustworthy Machine Learning, Probability I, Applied Statistics, Predictive Analytics, Linear Algebra and Matrix Theory, Data Management, NLP Semantics, Intro to Mathematical Statistics, Intro to Stochastic Processes, Algorithms and Complexity, Data Structures, Software Engineering, Principles of Computer Systems (OS), Computer Organization and Architecture, Geometry of Space (FRI), Intro to Real Analysis, Differential Equations with Linear Algebra
- Activities and societies: Machine Learning and Data Science Club (MLDS), Computer Science Transfers' Society (CSTS), Hispanic Association of Computer Scientists (HACS), Freshman Research Initiative (FRI), Texas Iron Spikes, UT RecSports Intramural Sports

Summer Creek High School, Houston, TX — August 2017 - May 2021

- GPA: 4.0
- Class Rank: 5 / 585

SKILLS

Data Analysis/Data Science: Python, R, RStudio, Pandas, Scikit-Learn, TensorFlow, PyTorch, NumPy, Matplotlib, SQL, PostgreSQL, MySQL Workbench, Microsoft Excel
Software Engineering: Java, C, TypeScript, HTML, CSS, React, Flask, Node.js, Postman API, Jira
Cloud: Amazon Web Services (AWS), Google Cloud Platform (GCP)
Miscellaneous: Git, GitHub, GitLab, VS Code, Microsoft Word, Microsoft PowerPoint

EXPERIENCE

Regions Bank, Atlanta, GA — May 2024 - August 2024
Software Engineer Intern

- Developed 5+ new portal components using TypeScript, C, and AWS CLI in an Agile framework for RelationshipIQ, a cloud-native onboarding platform for prospective Regions Bank business clients
- Generated 100+ unit and coverage tests for new components and behavior implemented into the platform
- Conducted research on the machine learning and artificial intelligence capabilities of 10+ peer banks
- Achieved first place in the 2024 Regions Bank AWS GameDay Hackathon

PROJECTS

Evaluating Political Bias in Popular Generative LLMs

- Engineered a dataset of 750+ sentence prefixes by scraping news websites
- Utilized 4 GPT models from Hugging Face and OpenAI API for sentence completion
- Performed a sentiment analysis on sentence prefixes and suffixes to measure bias in model output using Pandas and the Hugging Face sentiment metric

Spanish Energy Market Prediction

- Assembled a dataset of 80+ features by combining Spanish energy and weather datasets over a 4 year span, using correlation analysis and Pandas for feature engineering
- Developed an ensemble of random forest, regression, and KNN models after testing the performance of 7 initial models
- Predicted the price of energy in Spain with an R-squared value of 0.933

DietRiot Web Application

- Built and deployed a React web application to provide users with bespoke recipe and diet information

- Utilized HTML, CSS, and TypeScript to create model pages and instance cards for each recipe or diet
- Constructed a RESTful API with Postman and generated 40+ unit tests for the API and web application

Personal Portfolio Website

- Designed and created a personal portfolio website using HTML for page content and CSS for styling
- Implemented HTML elements such as images, headers, and anchors

Memory Management System

- Designed and developed a dynamic storage allocator in C to mimic the malloc() and free() functions used for memory management
- Utilized bitwise operators and linked lists to ensure efficient alignment, padding, and memory allocation

Huffman Encoder/Decoder

- Constructed a Huffman encoder/decoder in Java using lists, maps, and binary search trees
- Modified an existing text-based and graphical user interface for users to choose files to encode or decode

LEADERSHIP & COMMUNITY INVOLVEMENT

Computer Science Transfers' Society (CSTS) August 2021 - Present

President (2024 - Present), Treasurer (2023 - 2024), Member (2021 - Present)

- Planned and budgeted events, such as transfer application and professional workshops, officer meetings, and socials
- Designed, acquired, and distributed merchandise to 50+ active members
- Authored and distributed an annual prospectus for both current and potential corporate sponsors

Texas Iron Spikes August 2021 - Present

Administrative Officer (2023), Member (2021 – Present)

- Designed, acquired, and distributed merchandise to 100+ active members
- Collected and managed over $5,000 in purchase orders from members before distributing merchandise
- Engaged in a variety of service events and projects, such as park cleanups, gardening programs, and meal drives

HONORS AND AWARDS

- Hispanic Scholarship Fund Scholar — Fall 2020/21/23/24
- Andersen Foundation Scholar — Fall 2024
- Eva Stevenson Woods Endowed Presidential Scholar — Fall 2024
- University Honors — Fall 2021/22/24, Spring 2022/23/24
- Bitar Family Endowed Scholar in Computer Science — Fall 2023
- National Merit Commended Scholar — Fall 2020
- National Hispanic Scholar — Fall 2020