

Nathan Zhao

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EDUCATION

Rice University

Houston, TX

Bachelor of Science in Computer Science, Bachelor of Arts in Sports Analytics - 3.8 GPA

Aug. 2023 – May 2027

RELEVANT COURSEWORK

Intro to Computer Science, Data Structures & Algorithms, Computer Organization, Linear Algebra

Intro to Program Design, Computer Systems, Intro to Modern Data Science, Multivariable Calculus

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, Swift, Java, C, HTML/CSS, R

Developer Tools: Git, VS Code, Visual Studio, Node.js

Libraries: NumPy, JQuery, pandas, Matplotlib, PyGame

EXPERIENCE

Software Intern

May. 2024 – July. 2024

Envision by WorldStrides

Houston, TX

- Collaborated with industry professionals in machine learning in securities and professors of rocket propulsion to develop curriculum on artificial intelligence, machine learned data analysis, and fundamental algorithms & data structures alongside Python and C++ implementation to educate over 400 high-achieving high school students

Software Engineering & Cloud Computing Extern

Mar. 2024 – Apr. 2024

Google

Houston, TX

- Explored, in an educational role under Cloud Architect Karl Smayling, software engineering, sales engineering, cloud architecture, and Google Cloud solutions to gain insights on how Google executes organizational transformations that fuel innovation, enable agility, and maximize ROI

Software Development & Application Security Extern

Mar. 2024 – Apr. 2024

Digital.ai

Houston, TX

- Examined, in an educational role, the utilization of machine learning algorithms in integrated RASP (Runtime Application Self Protection) software in client applications to actively defend and respond to network-based attacks

Deputy Director & IT Director

Sept. 2020 – Mar. 2023

Calgary Science Spelling Challenge (csschallenge.ca)

Calgary, Canada

- Devised a website using Javascript, HTML/CSS for outreach and communication with over 100 competitors
- Applied preexisting weighted sorting algorithms to tabulations on Excel & Google Sheets to find top results
- Led the live event as the primary executive speaker for the team, communicating essentials to competitors

Vice President of IT

Nov. 2020 – Feb. 2021

BundleUp – A Junior Achievement Company

Calgary, Canada

- Fabricated an online product-distribution mechanism (Python, Google Sheets API, QR codes); conceptualized a website (Javascript, HTML, CSS) to sell digital coupons for struggling local businesses during the pandemic
- Led over 15+ employees – profited over \$2000 in revenue and revitalized the local varsity area

PROJECTS

Rice Sport Analytics Team (RSAT) | Python, Google Sheets, Data Science

Sept. 2023 – Present

- Applying comprehensive algorithms to 300+ current college sport data sets and forming visualizations/models, using Python and Google Sheets, to communicate essential in-game conclusions to teams in accessible ways

Elucidating the Transmission of a Bacterial Infection | Python, Greedy Algorithms

Feb. 2024 – Apr. 2024

- Using epidemiological tracking data of patient genomes, built a program that computed the rooted directed minimum spanning tree (RDMST) of weighted graphs that represented an antibiotic-resistant bacterial infection to elucidate the most probable transmission map of the disease

LASSO Sports (Data) Analytics | Python, Machine Learning, Predictive Algorithms

Oct. 2023 – Dec. 2023

- Developed a program in Python to estimate the wins of a baseball team in a given season by constructing a matrix model through computing weights for 1000+ historical data sets
- Employed a statistical algorithm to compute a model that identifies the most prominent and important trends to increase future predictive validity with new data sets