Nathan Suh

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Education

Washington University in St. Louis, McKelvey School of Engineering — St. Louis, MO
Bachelor of Science in Computer Science + Mathematics — *August 2021 – May 2024*

GPA: 4.0/4.0 | **SAT Score:** 1560 | **Honors & Awards:** Summa Cum Laude (May 2024), Antoinette Frances Dames Award (Fall 2022), Dean's List (Fall 2021 - Current) | **Relevant Coursework:** Data Structures and Algorithms (TA), ML Theory, Cryptography, Linear Statistical Models, Matrix Algebra, Graph Theory, Certified AWS Solutions Architect Associate

Professional Experience

Grand Charter — New York City, NY
Founding Engineer — *February 2025 – Present*

- Built a platform that comprises of 3 products, 105 SQL tables to streamline litigation for attorney, plaintiff, and financier
- Created internal dashboard to manage 50 attorneys, 8000 plaintiff leads per month, and reduces ad-hoc SQL by 90%
- Pioneered a plaintiff financing flow that was used to provide $6000 in funding for a plaintiff, projected to return $24,000
- Facilitated a seamless integration with Keller Postman LLC leading an increase in personal injury leads by 20%

Capital One — McLean, VA
Associate SWE — *August 2024 – February 2025*

- Developed a cloud application that monitors the status of over 100 million customers and accordingly decides marketing
- Discovered decisioning optimization for application that reduces audit logs by a factor of 10, reducing costs by 60%
- Investigated a workflow that will allow for local testing of cloud application, increasing testing bandwidth by 800%

SWE Intern — *June 2023 – August 2023*

- Assembled the first iterations of a web app that includes a digital self-service experience for Direct Credit Bureau Disputes
- Streamlined customer experience for approximately 44 million accounts with a dynamic interface created using Angular
- Expedited the web development process for over 20 teams by updating shared components to support mobile screens

Bonhome — St. Louis, MO
Full-stack SWE Intern — *June 2022 – August 2022*

- Created a web app platform for 30 parents and daycare providers in order to make daycares more accessible in St. Louis
- Built a 1-on-1 chat function between parent accounts and provider accounts using relational GraphQL collections
- Implemented a location-based search that allows for parent users of the web app to search providers using AWS Geo

Washington University School of Medicine in St. Louis — St. Louis, MO
Research Intern, Aravamuthan Lab — *September 2021 – December 2022*

- Conducted research using DeepLabCut (Python Package) and MATLAB to determine whether dystonia in cerebral palsy can be quantifiably diagnosed with data derived from labeled joints, which will increase accessibility of dystonia diagnosis
- Spearheaded the organization and priming of 300 videos so that they would be trainable by the DeepLabCut toolbox
- Collaborated with principal investigator and technicians to distinguish and quantify signs of cerebral palsy dystonia
- Established protocol for acquiring videos in the Children's Neurology department for computer assisted gait analysis

Children's National Hospital — Washington, DC
Research Intern, Developing Brain Institute — *August 2020 – June 2021*

- Analyzed newborn cerebellar functional connectivity and volume from 33 scans to determine whether prenatal maternal stress has a statistically significant effect on the newborn brain using multivariate linear regressions from R and MATLAB
- Lead authored the *Cerebellar volume and connectivity changes associated with in utero exposure to maternal anxiety* abstract, which was published in *Children's National Hospital REI Week 2021 E-Booklet*, detailing cerebellar changes due to maternal stress
- Hypertuned 3D U-Net neural network parameters for segmenting the cerebellum from fetal fMRI whole brain scans

Personal Projects

Graph Dashboard
HTML, JavaScript, d3.js — *December 2023 –Present*

- Leverage d3.js to create a dynamic dashboard, where users can create, save, edit visuals of mathematical graphs
- Utilized this project to present graph theory concepts to 12 people with non-convoluted visual representations of graphs
- Incorporated theoretical aspects of graph theory and operations like traversals, algorithms, and property identifiers

Additional Information

Technical Skills: Python, Java, JavaScript (NextJS, Vue, Angular), HTML/CSS, R, SQL, C++, MATLAB, AWS, GCP, Git
Interests: Reading, Brain teasers, Cooking, Poker, Mechanical keyboards, Sudoku, Weightlifting, Lacrosse, Video games, Movies