Paul Yoon

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EDUCATION

STANFORD UNIVERSITY Expected Graduation: Jun 2027
Bachelor of Science, Mathematics, Minor in Music *GPA: 3.8/4.0*

Relevant Coursework: Linear Algebra, Differential and Integral Calculus of Several Variables, Differential Equations with Fourier Methods, Computer Organization and Systems, Real Analysis, Probability Theory for Computer Scientists

PROFESSIONAL EXPERIENCE

SUNDIAL Palo Alto, CA
Data Science Intern *Jul 2024 – Sep 2024*

- Developed robust user fraud detection system for using Apache Spark SQL, slashing false positives by 40% and boosting accuracy through behavior-based thresholds
- Enhanced forecasting precision of Prophet ML model by up to 120% via automated parameter tuning, significantly improving data decomposition and predictive capabilities
- Utilized Sundial's product internally to identify pain points to drive 5+ product enhancements for a better end user experience

WUNDERLING LEARNING CENTER Los Altos, CA
Mathematics, Reading, Writing Tutor *Jul 2024 – Sep 2024*

- Tutored 50+ students from K-12 and adjusted teaching methods to individual needs, driving rapid improvements
- Created Slingerland-based learning materials for practicing word sounds, incorporating stories and tailored exercises

STANFORD SCHOOL OF MEDICINE Stanford, CA
Research Assistant *May 2020 – Jun 2023*

- Collected data and analyzed visual indicators of pain in PET/MRI scans of 15 patients with chronic knee pain
- Presenter at the annual meeting of the Society of Nuclear Medicine and Molecular Imaging in June 2021: "SIR PET/MRI of patients with chronic knee pain reveals potential pain generators not otherwise identified with standard care: Early experience"
- Co-authored manuscript: "Sigma-1 receptor changes in chronic knee pain: Preliminary results of 15 patients using PET/MRI"

PROJECTS

Explicit/Implicit Heap Allocator Jun 2024
Unix, C

- Implemented the "malloc", "realloc", and "free" functions optimizing for request throughput and memory utilization
- Utilized an explicit list of nodes to dynamically assign best locations for new memory requests and reduce memory fragmentation
- Achieved 91% memory utilization via testing on heap activity memory requests from Emacs, Cmake, Firefox, and more

Stanford Christian Students App Jun 2024 - Present
React Native, Typescript

- Implementing 10+ UI changes for a more streamlined user experience
- Maintaining code readability, function decomposition, and bug fixing among the app's 50+megabyte codebase

ADDITIONAL

Technical Skills (Programming): Python, SQL, TypeScript, React Native, Markdown, C++, C, HTML/CSS
Technical Skills (Developer Tools): LaTeX, Vim, Unix, Git, QT Creator, Jupyter Notebook
Languages: English (Native Speaker), Spanish (Conversational), Korean (Conversational)
Other Involvement: Stanford Blockchain Club, Stanford Symphony Orchestra, Stanford Korean Student Association, Stanford Christian Students, Stanford Philharmonia, Stanford Student Technical Support