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
Intern *Jul 2024 – Sep 2024*
- Developed fraud detection algorithm, reducing false positives by 50% and boosting accuracy through behavior-based thresholds
- Created, trained, and tuned a time series seasonality model, outperforming existing model by 120% as measured by mean absolute percentage error (MAPE)
- Worked with data scientists and software engineers to identify 10+ product enhancements and opportunities

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 20+ Slingerland-based learning materials for practicing word sounds, incorporating stories and tailored exercises
- Optimized office operations through digital filing and spreadsheet automation, cutting document retrieval time by 30%

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: "S1R 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 assign optimal locations for new memory requests and lower memory fragmentation
- Achieved 91% memory utilization via testing on heap activity memory requests from Emacs, Cmake, and Firefox

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