Sam Xu

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Profile: An undergraduate student at the Department of Engineering, Stanford University. He has a background in Computer Science and is currently studying Electrical Engineering. In parallel, he is researching computer architecture and machine learning techniques. Currently seeking opportunities to work with other engineers to implement machine learning products.

Education

Sep 17 – Jun 21   **Stanford University**   Palo Alto, CA

- Major: Electrical Engineering, Computer Science Track
- Relevant Courses: Principles of Computer Systems, Digital Systems Architecture, Machine Learning, CNNs for Visual Recognition, Reinforcement Learning, Convex Optimization
- Relevant Skills: Multi-thread and multi-process programming, C/C++ programming and debugging, system level architecture

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Internship/Research Experience

Jun 16 – Present   **Stanford Molecular Imaging Instrumentation Laboratory**
Student Researcher   Palo Alto, CA

- Developed a 3D generative adversarial network model for automatic PET/MR attenuation map generation
- Executed research, constructed models, and communicated findings to senior lab members
- Created metrics and codebase for automated reporting of model accuracy

Oct 15 – Present   **Weill Cornell Medical College** - ***Brain and Mind Research Institute and Department of Neurology***
Student Researcher   New York, NY

- Engages in a research project pertaining to computational/statistical analysis of human vision and MRI
- Co-authoring a peer-reviewed scientific paper, which was submitted to Siemens and Regeneron
- Collaborates with various professors in inter-disciplinary group research

Jun 17 – Aug 17   **Caine Mitter & Associates Incorporated**   New York, NY
Analyst Intern

- Performed quantitative analysis of municipal bond data for state clients
- Created a digital database of Request for Proposals to be used for work projection
- Updated training material with up-to-date statistics to use for client presentation

Jun 16 – Sep 16   **Guardian Life Insurance**   New York, NY
IT Project Management Intern

- Managed project statuses and the software development life cycle (SDLC) process using the Waterfall model
- Engaged in a project to migrate the company's datacenter into the AWS cloud platform
- Creation of training material for the company's project management interface

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School Activities
- **Stanford Dragon boat**, (Sep 2017 – Present)
- **Stanford AI Group**, (Oct 2017 – Present)
- **Stanford Space Initiative,** (Aug 2018 – Present)

Professional Skills

- Core ML Tools: Numpy, Scipy, R, Pandas, Tensorflow, PyTorch
- Core Languages: C, C++, Python, MATLAB, Java, SQL, LUA, Processing
- Core Build Chain: Git, Jenkins
- C Familiarity: C++98/C++14/C, Valgrind, GDB, Boost, STL, Template Generics
- GPU Programming: Cuda, OpenGL
- Platform/Software proficiency: Google Cloud, AWS, Linux (Ubuntu & Arch), Tableau, Photoshop, Inkscape, and Illustrator