Angel (Xiaowen) Zhang

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Education

Yale University, Graduate School of Arts & Sciences, New Haven, CT   *05/2018*
- Master of Science, Computer Science
- **Selected Coursework:** Database Systems, Deep Learning Theory and Applications, Distributed Systems, Intelligent Robotics, Advanced Management of Software Development, and Natural Language Processing

The Cooper Union, Albert Nerken School of Engineering, New York, NY   *05/2017*
- Bachelor of Engineering, Electrical Engineering   Cumulative G.P.A: 3.81/4.0, Summa Cum Laude
- **Honors: Dean's List**, all semesters**; Full-tuition Scholarship; Hoffman Beller Prize,** for merit in engineering studies
- **Selected Coursework:** Artificial Intelligence, Computer Graphics, Software Eng & Large System Design, and Entrepreneurship

Computer Skills

- Programming Languages: Java, C/C++, SQL, JavaScript, HTML, and MATLAB
- Software Knowledge: Eclipse Java, Xcode, Adobe Dreamweaver, and Microsoft Office

Technical and Management Work Experience

MarketAxess, New York, NY
Application Developer, Application Programming Interface (API) Team   *06/2018 - Present*
- Enhance and support API solutions and strategies to the MarketAxess fixed income e-Trading Platform. Duties are performed using Oracle, Java, Gradle, Python, JMS Messaging, FIX Protocol to design a redundant, low latency, multi-threaded system.
- Projects include software development for handling the processing of Orders from external Order Management/Execution Management Systems, sending Post Trade Messages, Allocation services, Client and Dealer Trading APIs, Market Data Feeds, Regulatory Reporting services, Settlement services, and other internal monitoring.
- Work closely with Business Analysts, Quality Assurance, Customer Integration Teams discussing specifications, test plans, and customer setup. Collaborate with Production Support investigating and resolving issues which arise in the Production environment.
- Present technical walkthrough documentation describing work performed throughout each release cycle to various teams.

Artsify, New York, NY
Co founder & Software Developer   *01/2017 – 05/2018*
- Designed and marketed a web service product, Artsify, which is an online fine arts marketplace that aims to simplify the art sale process. Designed user interface using HTML and CSS, and constructed the art database using MySQL. Launched the minimum-viable-product(MVP) in May 2017, maintained the current website service, and updated the product features weekly.
- Delegated team to financial stability oversight, marketing campaign design, and software developments. Connected with potential influencers, suppliers, and clients. Conducted market researches, competitive analysis, and financial projections, tested business hypotheses, and quickly adapted feedbacks. Collaborated and performed pitch to prospective artists and startup coaches.
- Practiced SCRUM and Agile software process with effective use of Git for version control and TrelloBoard for managing product and sprint backlogs. Hosted weekly meetings for sprint planning and retrospective, and documented the progress as sprint reports.
- One of four finalists in the SASETank 2017 entrepreneurial competition, and will present in the SASE conference in October 2017.

The Cooper Union for the Advancement of Science and Art, New York, NY
MATLAB Instructor, Electrical Engineering Department   *01/2016 - 05/2017*
- Instructed students on using MATLAB, a leading computational mathematics platform for engineers. Developed syllabus through discussions with the department Dean, prepared weekly presentations for a class of 15 students, and hosted office hours. Designed, assigned and graded select problem sets throughout the course. Cooperated students' feedbacks into course schedule.

Engineering Projects - http://www.angelzxw.com/home/#projects

Kitty Or Doggo?, *Deep Learning Theory and Applications, Yale Graduate School of Arts and Sciences*   *Spring 2018*
- Led a team of four, and implemented three different models as image classifiers to distinguish dogs and cat.
- Designed a simple convolutional neural network architecture with five layers as a baseline, then further expanded the depth of the network, and fine tuned learning rate, filter sizes, stride, dropout regularization rate to optimize resulting accuracies. Finally utilized transfer learning by adopting the pre-trained VGG16 network model and a two-step fine-tuning scheme to enhance the performance, and achieved the highest accuracy of 97.8%, being 3.897% higher than the average of publicly documented records.

Research Project: Blockchain in Smart City Application, *Distributed Systems, Yale Graduate School of Arts and Sciences   Fall 2017*
- Worked in a team of two, and deployed Blockchain on a peer-to-peer system in C++, considering a specific Smart City scenario, where hashed information of the image and video from surveillance cameras are managed and shared by multiple IoT nodes for decentralization and public auditing purposes.
- Created a real-time web monitoring application to visualize all the information contained in the Blockchian blocks.

Dynamic Environment Mapping, *Computer Graphics, Cooper Union*   *Spring 2017*
- Innovated an interactive environment mapping application, using JavaScript and WebGL, which illustrates surrounding scene and moving cubes reflected on the surface of an object. Researched and cooperated with a texture mapping technique, Skybox.

Patent

Forthcoming patent (co-inventor), *Adaptive Workload Distribution for Network of Video Processors.* Intel Corporation, Shanghai, China, 2015