# Fang (Frank) Sun

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## EDUCATION

**University of Virginia**                                                                                           **Charlottesville, VA**
Bachelor of Science, major in Architecture, minor in Computer Science                              *May 2023 (Expected)*
➢   Teaching Assistant of *ARCH 1010: Lessons of the Lawn* (undergraduate level, 20 students)          *2022.08 - 2022.12*
    Led discussion sessions; provided feedback and grading on weekly assignments about architectural history
➢   Teaching Assistant of *PLAC 4010: Neighborhood Planning Studio* (graduate level, 16 students)      *2021.09 – 2022.05*
    Conducted weekly workshops on ArcGIS, Rhino and Illustrator skill development, organized meetings with architecture firms
**Summer Research on Architecture Criticism**                                                                          **Online**
A 6-week program, mentored by Rhode Island School of Design Prof. Markus Berger                     *2020.06 – 2020.08*

## PROFESSIONAL EXPERIENCE IN ARCHITECTURE

**Studios Architecture**                                                                                          **Washington D.C.**
Design Intern                                                                                                  *2022.12 – 2023.01*
➢   Modeled physical building and site models with 3D printing and lasering cutting for two ongoing health institution projects
➢   Created 6 Grasshopper script tests to present the proof of concept of automatic plan generator and parking space formation

**Perkins&Will**                                                                                                 **Washington D.C.**
Design Intern                                                                                                   *2022.05 - 2022.08*
➢   Benchmarked UVA Gilmer Hall and Chemistry Building Renovation projects and created Revit templates
➢   Designed the loading dock and back entrance for Omega Building & Key West Building in Rockville and rendered images
    with Photoshop and Enscape
➢   Proposed 8 logo-inspired iterations of parametric shelf for Perkins&Will DC office with Rhino, Grasshopper, and Dynamo

**HDR Inc.**                                                                                                        **Arlington, VA**
Design Intern                                                                                                   *2021.12 - 2022.01*
➢   Drew analysis diagrams and recreated unit models for a children's hospital with AutoCAD, Rhino, Revit, and Photoshop
➢   Designed 10 parametric façade iterations for a Schematic Design project with Rhino, Grasshopper, Revit, and Dynamo
➢   Created 2 Grasshopper plugins (via Python) for employees to conveniently generate solids only using curves

**AZL Architects**                                                                                                **Nanjing, China**
Research Assistant                                                                                             *2021.01 – 2021.03*
➢   Made 7 iterations of entrance design for Lei House (a traditional Chinese townhouse) renovation project with Rhino and
    AutoCAD
➢   Refined rendered plans and sections for Ruralation Museum Hotel (a hot spring resort hotel) for media publication with
    AutoCAD, Photoshop, and Lumion
➢   Digitalized the hand drawings of sections and plans of a 2011 project (China International Practical Exhibition of
    Architecture No.4 House) with AutoCAD

**MAD Architects**                                                                                                **Beijing, China**
Design Intern                                                                                                   *2020.07 - 2020.12*
➢   Helped develop the circulation plan & created sections and rendered images for 2 floors of Jiaxing Civic Center
➢   Produced rendered drawings of the public courtyard and urban context and proposed 3 iterations for Pingtan Art Museum
➢   Improved the UI design of the firm's website (http://www.i-mad.com)

**Roboticsplus.AI (Shanghai) Co., Ltd**                                                                          **Shanghai, China**
Project Assistant                                                                                              *2020.05 - 2020.08*
➢   Programmed robotic arm movements for intelligent construction and assisted in developing CNC routers with C++ and Java
➢   Designed outdoor installations for the Jindi Office Building project and formulated models for 3D printing

**Tongji Architectural Design (Group) Co., Ltd.**                                                                 **Shanghai, China**
Design Intern                                                                                                   *2020.02 - 2020.05*
➢   Helped develop the ground space of Pinghe Secondary School in Suzhou and drew the plans and perspective sections of
the building to present to the clients
➢   Drew processing diagrams with AutoCAD; helped design external façades of Tongji University Creative Research Institute

# OTHER EXPERIENCES

**Alibaba Group Holding Limited**                                    **Hangzhou, China**
Java Developer Intern                                                *2021.06 – 2021.09*
- ➢ Co-established the online Internet of Things (IoT) system for Xi'niu's On-demand Production Factory
- ➢ Co-developed an automated customer management system for Xi'niu Factory to improve efficiency
- ➢ Reprogrammed label printers and embroidery machines with Java and ZPL to allow remote operations

**Beijing ByteDance Technology Co., Ltd**                            **Shanghai, China**
Lark Frontend Technical Services                                     *2021.03 – 2021.06*
- ➢ Provided debug and customization services for users of Lark Open Platform (workplace apps developer)
- ➢ Fixed Lark interface compatibility issues and reviewed a part of Lark 4.0 updates before it went online
- ➢ Co-initiated Lark Knowledge Base and used Java & Python to encode and categorize previous solutions

**Hummer Education**                                                 **Shanghai, China**
Founder & CEO                                                        *2019.04 – Now*
- ➢ Expanded the company's target customers from children to chess lovers of all ages
- ➢ Produced and published 270+ tutorial videos on YouTube, TikTok, and Bilibili (more than 300,000 subscribers in total)
- ➢ Devised chess-playing website and WeChat mini-program with Node.js and React

**APPLE Inc.**                                                       **Shanghai, China**
System Test Design Lead                                              *2017.04 - 2018.10*
- ➢ Debugged 20 issues in macOS 10.14, including 3 severe security alerts with privacy and message missing
- ➢ Collected and provided feedback on the user experience of the iOS 11 Application Program Interface

**Aparkers (Smart Parking Development)**                             **Shanghai, China**
Initiator & Leader                                                   *2016.10 - 2018.03*
- ➢ Led a team of 8 to identify the causes of parking problems in Shanghai
- ➢ Crafted a smart parking plan and visualized the parking space design with Rhino and BIM
- ➢ Developed and installed signal detection devices in existing parking lots to shorten waiting time
- ➢ Created an app providing parking guidance and promoted it in AppStore and Google Play
- ➢ Received the patent (**201721325329.0**); the project was acquired by ETCP, a leading company in intelligent parking.

## Publications
- ➢ Sun, F. (2022). Zhouzhuang, Suzhou: The Change of Residential Space in Jiangnan Water Ancient Towns due to the Continuously Rising Commercialization. *Journal of Planning Education and Research*. **(in press)**
- ➢ Sun, F. (2022). "Metabolism Tragedy" – The Deconstruction of Nakagin Tower. *Journal of Architectural Education*. (under review)
- ➢ Sun, F. (2022). How to Modify the Time of Yellow Traffic Lights in order to Improve Traffic Efficiency? *International Journal of Mathematics*. (submitted)
- ➢ Sun, F. (2022). Doppler Effect in a Circular Motion – Relationship Between Frequency Received and the Corresponding Angle. *American Journal of Physics*. (submitted)

## Fellowship & Awards
- ➢ 2022 Erwin-Ramsey Fellowship (awarded to 1 undergraduate student at UVA School of Architecture each year)
- ➢ 2022 Perkins&Will Summer Internship Design Competition, 2nd Prize
- ➢ 2022 Competition to Renovate Historical Buildings in Nanjing, 2nd Prize

## Skills
**Programming Languages:** Java, Python, MATLAB, HTML
**Visualization Software:** Photoshop, Illustrator, InDesign, V-ray, Lumion, Enscape, Keyshot
**Drafting and Modeling Software:** Rhinoceros, Grasshopper, Sketchup, AutoCAD, ArcGIS, Revit, BIM
**Prototyping Tools:** 3-D Printing, Laser Cutting, CNC Printing, Wood/Bamboo cutting
**Interests:** chess (National Master), tennis, Rubik's cube, biking, photography, drawing