

# Xiangyue Zheng

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## Education

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**The George Washington University (Washington D.C.)** **Expected May 2019**

School of Engineering & Applied Science

Master of Science in Computer Science - GPA 3.85(top 15%)

Indented concentration: Computer Graphics, Web Technology

**Sun Yat-Sun University (Guangzhou, China)**

**June 2016**

School of Data & Computer Science

Bachelor of Science in Computer Science - GPA 3.5

## Skills

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Language: C/C++, PHP, Python, JavaScript, Matlab, HTML/CSS

Tools: Mysql, Git, Redis, thrift, HDFS, Kafka, OpenGL, NPM, Docker,  
NodeJs, CMake, VUE, Django, CodeIgniter

Knowledge: Algorithm, Operating System, Computer Network, Computer Graphics,  
Machine Learning, Data Compression, Web Technique

## Projects

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**Graphics Renderer (Graphics, C++)** **Feb 2018 - Present**

- Implemented perspective transform, Z-buffer, Scan-line algorithms
- Implemented illumination models, texture mapping and depth of field effect
- <https://github.com/Zhengxiangyue/renderer>

**3D Key Framing Animation Generator (Graphics, Animation, C++)** **Present**

- Implemented spline, Euler angle, quaternion, hierarchy object
- <https://github.com/Zhengxiangyue/animation>

**Real Time Face Slimming Filter** **Present**

(Image processing, Machine Learning, Python)

- Avoided "sudden mutation problem"
- Used image morphing, triangle interpolation, face detection based on CNN

**Image Compression Component (Algorithm, Math)** **Jan 2017 - Apr 2017**

- Designed an image compression algorithm for self-organized network terminals based on discrete cosine transform
- Achieved compression ratio of 10 - 15, making it possible for self-organized network application to transfer images with good quality

**Web Apps (PHP, Python, Javascript, HTML)** **2016 - 2018**

- Technique People, A social media platform. <http://www.js-r.com/>
- Conference Booking, <https://github.com/Zhengxiangyue/conferenceBooking>
- Lpyton Doc, A rich text editor. <https://github.com/Zhengxiangyue/lyptondoc>
- Vocabulary Memory, <https://github.com/Zhengxiangyue/MemoryWords>

## Experience

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**ByteDance** Software Engineering Intern **May 2018 - Oct 2018**

- Developed "Content Audit Assessing Platform".
- Complete 25% ahead of time schedule. Time-saving over 300% compared to the previous method