Bicheng Luo

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Education

Columbia University, New York, NY *Sep 2017–Dec 2018(Expected)*
M.S. in Computer Science (Vision/Graphics Track)

Tsinghua University, Beijing, CN *Sep 2014–Jul 2017*
M.Eng. in Software Engineering, GPA: 94.9/100, Ranking: 2/156

Nanjing University, Nanjing, CN *Sep 2010–Jul 2014*
B.Eng. in Software Engineering, GPA: 4.37/5.0

Professional Experience

Google, Software Engineering Intern | GeoAR *May 2018–Aug 2018*
◇ Implement UGC authoring function based on ML Kit (Text/Landmark Recognition) and Cloud Vision API
◇ Utilize ARCore to anchor UGC place cards with real world storefronts on Android
◇ Implement back-end services based on Protocal Buffer and Stubby RPC

Microsoft, Software Engineering Intern | Windows and Devices Group *Jun 2016–Aug 2016*
◇ Developed avaChat, an application based on UWP and Unity3D for chatting with friends in 3D avatars
◇ Developed avaChat_Holo, a transplanted version of avaChat on Microsoft HoloLens

Leezee, Startup Co-founder & CTO *Oct 2014–Feb 2016*
◇ Built an iOS application utilizing face detection to create interactional short videos:
- Integrated face detection with GPUImage
- Wrote GLSL shaders for GPU-accelerated video processing
- Utilized MBaaS framework (Parse) to implement social network services
- Built storage solution for short videos on Amazon S3 with network modules using AFNetworking

Tsinghua University, School of Software, Research Assistant & Teaching Assistant *Aug 2014–Jul 2017*
◇ Parallax360: Stereoscopic 360° Scene Representation for Head-Motion Parallax
- **TVCG** Special Issue on **IEEE VR 2018**
- Invited talk for **SIGGRAPH 2018** IEEE TVCG Special Session on Mixed and Augmented Reality
- Construct a set of capture device based on Arduino to obtain implicit depth of real world scenes
- Implemented a real-time synthesis method to demonstrate VR scenes on Oculus Rift using Direct3D/HLSL

◇ Worked as a teaching assistant for Algorithm Analysis and Design, and Computational Geometry

University of Queensland, School of ITEE, Research Intern *Oct 2012–Feb 2013*
◇ Designed algorithms for real-time content-based image similarity indexing and retrieving
◇ Developed an iOS app with Java EE backend and published a demo paper on **WISE2013**
- Imagilar: A Real-Time Image Similarity Search System on Mobile Platform

Selected Projects

Light Field Compression, Tsinghua University *Sep 2014–May 2016*
◇ An end-to-end solution of capturing, storage and presentation of light field using C++, OpenCV and Arduino

ImageProcessing, Tsinghua University *Sep 2014–Jan 2015*
◇ A photo editing tool based on MFC and OpenCV, support luminance/contrast adjustment, blur and sharpen, face detection and beautifying, featured with image impainting

WebGLBrush, Nanjing University *Apr 2014–Jun 2014*
◇ Thesis project in Nanjing University, a WebGL-based 3D sculpture modeling system inspired by ZBrush

Technical Skills

◇ Programming Languages: C/C++, Java, Objective-C, C#, Python, JavaScript
◇ Tools and Technologies: iOS Development, OpenCV, OpenGL/WebGL/GLSL, Direct3D/HLSL