Jinbin Huang

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Objective

I am a believer of the enormous potential value that HCI and visualization can bring to humanity, looking for internship opportunities in Explainable AI/XR(AR/VR)/Interactive Visual Analytics projects.

Education

Arizona State University — Tempe, AZ
Ph.D. in Computer Science; Cumulative GPA: 3.94/4.0; Advisor: Dr. Chris Bryan — *Aug. 2019 – Present*

Sun Yat-Sen University — Guangzhou, China
B.S. in Mathematics; Yat-Sen Honor College; GPA: 3.90/4.00 — *Aug. 2014 – May 2018*

Experience

Graduate Research Assistant — Fall 2019 – Present
Arizona State University — *Tempe, AZ*

- **VR Heart**
  Developed a VR application on Unity that facilitated heart surgery planning for cardiologists who were enabled to investigate and virtually interact with patient's heart through customized model manipulations, such as dragging, rotating, and cross-sectional cutting
- **VAST Challenge 2020**
  Designed and developed an interactive visual analytic approach – TotemFinder – for identifying key players inside of a social network to tackle the Mini Challenge 2 of VAST Challenge 2020, which received **Honorable Mention**
- **Visualizing Smart Grid**
  Developed programs in python for large-scale PMU (Phasor Measurement Unit) data reading and processing and programs for testing data query efficiency at different data granularity and in different server configurations for a large scale platform designed to assist power system management

Deep Learning Engineer — Summer 2018 – Summer 2019
Camputer Lab of Duke Kunshan University — *Kunshan, China*

- **Deep-learning Based Image Stitching**
  Developed CNN(convolutional neural network)-based image stitching algorithms for 100-MegaPixel array camera: leveraged topological structure of the target array camera and an optical-flow estimating super-resolution network, eliminating the need of explicit feature points searching, delivered concept-demonstrating prototype in TensorFlow and tested on product
- **Auto Color Correction for Camera**
  Developed a color matching algorithm for array-cameras: Building models for ISP pipeline to linearize sRGB calibrationg data; Converting MATLAB prototype code to Python code; Collecting data and conducted algorithm testing.

Publications

Huang, J., Mishra A., Arunkumar A., Bryan C. (2020) TotemFinder: A Visual Analytics Approach for Image-based Key Players Identification. In *IEEE VIS 2020* Vast Challenge Mini Challenge 2

Scholarships and Awards

Honorable Mention for Effective Use of Visual Encodings for Correcting Classification Errors in VAST Challenge 2020, Mini-Challenge 2

Technical Skills

Languages: Java, Python, C/C++, SJavaScript, HTML/CSS
Frameworks: React, Node.js, Flask, Material-UI, Unity
Libraries: pandas, NumPy, Matplotlib