Daniel Yuan

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EDUCATION

UNIVERSITY OF ILLINOIS — Urbana - Champaign, IL
Bachelor of Science in Electrical Engineering — Overall GPA: 3.50
Minor in Computer Science
May 2018

Related Coursework:

ECE 385 - Digital Systems Laboratory
ECE 310 - Digital Signal Processing
ECE 342 - Electronic Circuits
ECE 470 - Robotics Laboratory
CS 440 - Artificial Intelligence
CS 420 - Parallel Programming
CS 446 - Bioinformatics
CS 225 - Data Structures

RESEARCH

Simulating Features for Structure from Motion Evaluation — **Champaign, IL**, *Fall 2017 - Ongoing*

- Creating a model for simulating feature extraction and matching from existing datasets to evaulate structure from motion algorithms
- Designing new workflow for comparing simulated and actual results

Using Fiducial Markers to Improve Structure from Motion — **Champaign, IL**, *Fall 2017 - Ongoing*

- Creating a system to use fiducial markers in the structure from motion pipline for complex environments

OpenMVG Computer Vision Independent Study Project — **Champaign, IL**, *Fall 2016*

- Implemented algorithm for refining pointclouds using GPS data
- Created new workflow to extract GPS data from image EXIF data and solve for cartesian coordinates to refine camera poses during bundle adjustment

EXPERIENCE

Reconstruct Internship — **Champaign, IL**, *Summer 2017, Summer 2016*
Full Stack Web development

- Designed frontend and backend architecture for performance at scale
- Automated processes for data management in MongoDB and S3
- Utilized AWS cloud services for scalable deployed environments

Reconstruct — **Champaign, IL**, *Spring 2017*
Part Time Computer Vision Engineer

- Benchmarked structure from motion algorithms for quality and speed
- Automated collection of benchmark metrics for previous reconstructions

CAFASC Website Redesign — **Champaign, IL**, *Spring 2015*

- Redesigned website for the Chinese American Faculty of Southern California
- Designed and built architecture for inexperienced web managers

PROJECTS

Evolution Gym Personal Project — **Ongoing**, *Summer 2017*

- Created environment to benchmark and understand different learning methods, including genetic algorithms, Q-learning, neural networks.
- Implemented randomly seeded terrain generation for tile-based survival environment

AWARDS

Deans List for Academic Excellence — **UIUC**, *Fall 2014*

SKILLS/LANGUAGES

Python, C++, C, Node.js, HTML, CSS, Java, Assembly, System Verilog, Lua, Matlab