Daisy Zheng

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EDUCATION

Cornell University
College of Engineering
Major: Computer Science, B.S. Minor: Biology
Graduated: May 2018 GPA: 3.598

EXPERIENCE

Yext July 2018 – Present
Software Engineer, Mentor

- Played a significant role in rebuilding the existing web scraping server using Docker in Kubernetes, drastically reducing error rates and decreasing scan latency from several minutes down to just a few seconds
- Worked with the company's emerging technology to develop a prototype for the new system of page generation and publishing
- Designed and implemented new features and optimized existing flows for the Knowledge Assistant chat bot as part of the R&D team
- Took on a lot of responsibility for the team early on after becoming the sole full-time developer on the team

Game Design Initiative at Cornell January 2017 – May 2017, January 2018 – May 2018
MVP, Software Lead of 6-student team

- Developed 2 unique video games in Java/C++ over 2 separate semesters and released them to the public at the GDIAC Showcase – *won 1st place Audience Choice award*
- Led the implementation of the enemy AI and the fog and visibility system – both major game features – and built the visual effects shaders and program architecture; worked closely with the rest of the team to design and build the game concept and engine

Biogen June 2017 – August 2017
R&D IT Intern

- Built a 3D neuron tracer and dendritic spine detector using Python that automates the time-consuming and labor-intensive task of manually analyzing neuron scans to collect metrics on dendrites, paving the way for target screening capabilities with reduced bias
- Tackled an industry challenge that has so far been met with limited success, providing a proof of concept that reduces the risk for the business to pursue the area further

Infinity ProAV June 2016 – August 2016
Computer Vision Intern

- Worked with a stereo camera system to reconstruct a 3D mesh of the environment from 2D photos and extract the foreground object of interest using Python
- Optimized the stereo algorithm for use in real-time detection of vehicles

SKILLS

- Java, Python, C++, Go, JavaScript, HTML/CSS
- WebGL, Three.js, NumPy, jQuery, D3

PROJECTS

- Implementation of algorithms that manipulate AlexNet, a pre-trained convolutional neural network. Capable of classifying images as dog vs. hot dog, calculating probabilities and saliency maps, and reconstructing images through feature inversion from hidden layers. *Python, team of 2*
- Random terrain generator with interactive camera controls. Simulates rain/snow weather effects and day/night environments and includes effects like water animation, reflections, displacement mapping, and atmospheric scattering. *JavaScript, WebGL, team of 4*
- Ray tracer used for rendering realistic lighting and shadows in mesh scenes with various light sources and materials – supports Lambert, Phong, and Cook-Torrance materials, Monte-Carlo and point light illumination, and texture and environment mapping. *Java, team of 2*
- Interactive data visualization of educational standards and crosswalks. Possesses a clean design for easy identification of hierarchal and cross-standard relationships and detailed information to assist with curriculum planning. *JavaScript, HTML, D3. Mindsumo challenge winner*

AWARDS

Graduated Cum Laude from Cornell University	2018
1st Place Audience Choice Award at GDIAC public showcase for team's mobile game	2018
Most Valuable Player of GDIAC 6-student team based on peer reviews	2017
3rd Place Audience Choice Award at GDIAC public showcase for team's video game	2017
Dean's List from Cornell University - Fall '17, Spring '17, Spring '15, Fall '14	2017
Mindsumo Challenge Winner for data visualization competition entry at Mindsumo.com	2016
2nd Place Cache of Kings Bot in Computer Systems class-wide single elimination tournament	2015
Harvard Book Award for academic excellence and strong character	2014

LEADERSHIP

Cornell Wushu – Practice Leader	August 2014 – May 2018
Illuminations Dance Troupe – Choreographer	August 2015 – May 2018
Project Hope at Cornell – Co-publicity Chair	August 2016 – May 2017
Concrete Canoe Project Team – Aesthetics Subteam, Historian	August 2014 – May 2015

SELECT COURSEWORK

- Computer Vision
- Computer Graphics
- Computer Graphics Practicum
- Introduction to Analysis of Algorithms
- Data-Driven Web Applications
- Operating Systems
- Advanced Computer Game Architecture
- Foundations of Artificial Intelligence
- Proteins and Metabolism
- Molecular Biology
- Principles of Animal Physiology
- Genetics and Genomics
- Laboratory in Genetics and Genomics
- Music on the Brain
- Introduction to Behavior
- Introduction to Organic and Biological Chemistry