Dimitar Kirilov

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Professional Summary

- I am a Computer Science student and a Division 1 swimmer at the University of Illinois at Chicago seeking a summer internship in my field of study. I'm offering experience as a Senior level computer science student with excellent dedication, work ethic, and leadership skills.

Education

- **University of Illinois at Chicago** - *Bachelor in Computer Science* Expected: December 2018
- Major GPA: 3.70

Work Experience

- **Undergraduate Research Assistant at Electronic Visualization Laboratory (EVL)**
  University of Illinois at Chicago, Illinois *May 2017 - Present*
  - Worked with real data and utilized JavaScript, CSS, and HTML to create interactive data visualization tools.
  - Worked on the SENSEI Project by utilizing Unity 3D, Blender, and OpenCV to simulate real world cameras.

Projects

- **SENSEI**: *May 2017 - Present*
  - I worked on a team with a fellow undergraduate research assistant on the SENSEI Project. This project is about creating a new type of camera that can be used to capture images/videos in 360 degrees which include three dimensional information. We utilized Unity 3D, Blender, and OpenCV in order to simulate real world cameras designs which were able to render images and animation. We created scripts in C#, C++, and Python as well as a few shaders in HLSL in order to assist with our image processing. Eventually, we were able to generate PLY files with real world coordinates which were sent out to other research teams along with the images and animation we created.
- **VAST Challenge:** *Summer 2017*
  - I worked on a team with a fellow undergraduate research assistant on the VAST Mini Challenge 1 which involved analysing real world traffic data of vehicles moving in and out of a park preserve. We analyzed data, created paper prototypes, and created a browser based visualization tool from those prototypes using JavaScript, D3 and Bootstrap (Javascript Libraries), HTML, and CSS.
- **Virtual Reality Solar System Visualization:** *Fall Semester 2018*
  - This was a project done in my Virtual Reality and Augmented Reality course in which I worked with a team of 3 other computer sciences students. We created a VR application for the HTC Vive which allowed users to visualize a series of solar systems obtained from combining several datasets and allowing intractability. Users could compare, scale, reorder and resize each system and its planets in order to allow for better comparison and analysis.

Publications

- D. Kirilov, I. Lindmae, A. Burks, C. Ma, G.E. Marai
  "MC1: A Bespoke Analysis Tool for Spatio-Temporal Park Traffic Data"
  IEEE Visual Analytics Science and Technology (VAST) Challenge 2017 Proceedings, pp. 1-2, 2017.

Skills

- Experience in working with a team in both the professional and non-formal settings.
- Programming Experience:
  - Proficient: C/C++, C#, Java, JavaScript (D3, Three.JS, JQuery), HTML, CSS, SQL
  - Basic Knowledge: Python

Activities and Awards

- NCAA Division 1 Swimming (University of Illinois at Chicago)
  - Devote 20+ hours per week to athletic duties while enrolled as a full-time student.