

# Miles Hilton

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3440 Lerner Hall, 2920 Broadway, New York NY, 10027

## Education

Columbia College, Columbia University. BA, Computer Science. Expected May 2017

## Experience

### **Columbia Department of Middle Eastern, South Asian, and African Studies**

New York, NY, September 2016 – Present

Webmaster

- Re-designed the course catalog and professor directory for easier navigation.
- Maintained and updated the department's codebase and website.

### **Goldman Sachs**

Jersey City, NJ, June 2016 – August 2016

Summer Analyst – Cloud Platforms

- Created and designed a dashboard to appraise my team of the health of 40,000 nodes in the cloud.
- Coded automatic self-healing of broken nodes in Python, using the Tanium API.
- Reduced the time for generating new configuration sets from hours to seconds by developing an Angular application to automate the process.
- Served both applications using Tornado servers in Python.

### **Student Association for the Advancement of Women**

New York City, NY, June 2015 – August 2016

Webmaster

- Launched the organization's web presence with a site and resources portal design.
- Developed a 5-page website with integrated Angular apps.

### **Spoken Language Processing Group**

New York City, NY, 2013 - 2014

Research Assistant

- Conducted user tests on the Java BOLT Arabic-English machine translator's oral interface.
- Gathered data leading to the publication of a paper at the SigDial conference.

## Projects

### **Pipeline and Raytracing Renderers, Spring 2016**

- Developed Blinn-Phong shading, Bezier surfaces, and shadows for a raytracing renderer
- Coded pixel- and vertex-shaders for a pipeline renderer
- Minimized collision calculation time by conducting binary search on nested bounding boxes

### **Physics Engine, Fall 2016**

- Created a physics engine with explicit- and symplectic-euler integration, general and intra-particle gravity, spring forces, and collision detection and response.

## Skills and Languages

HTML5, CSS3, JavaScript, JQuery, Angular, Python, PHP, Tornado, Tanium, Java, C++, C, MATLAB  
French (fluent)