

Fahad Zafar

Primarily a backend software engineer, interested in distributed systems, graphics/visualizations, AWS and Android development.

EDUCATION

University of Maryland Baltimore County (UMBC)

- Ph.D. in Computer Science Jan. 2010 – Dec. 2014
 - M.S. in Computer Science Jan. 2008 – May 2010
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WORK EXPERIENCE

Vectorworks Inc.: *Software Engineer*

Jan. 2015 – Present

Research and Development.

- Wrote [Point Cloud plug-in for Vectorworks 2016](#) that handles large (>100GB) datasets.
- AWS integration for remote execution of compute intensive services.

Amazon Inc.: *Software Engineering Intern*

May. 2014 – Aug. 2014

Computer Vision Research Group.

- Wrote a multi-threaded depth map extractor that generates a point cloud using the plane sweep algorithm for the Amazon Fire Phone.

Google Inc.: *Software Engineering Intern*

May. 2013 – Aug. 2013

YouTube (Data Analytics).

- Wrote the utility used for solving the Slowly Changing Dimensions problem for the columnIO tables in the YouTube data warehouse using map reduce on very large (Terabyte sized) datasets.

Google Inc.: *Software Engineering Intern*

May. 2012 – Aug. 2012

YouTube (Video Editor).

- Integrated the slow motion and other video effect into the YouTube video editor.
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SKILLS

- C++, Java, CUDA, OpenCL, MPI, OpenGL, SQL, AWS, Android OS, ASP, JSP, PCL, OpenCV, SteamVR.
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AWARDS AND ACHIEVEMENTS

- Wrote 5 android apps that are live on the play store such as live wallpapers that use a physics 2D engine (ANDEngine) and analytics calculation by a custom Java compute server and Facebook Parse backend.
 1. [Shop 3D](#): (Customize and order 3D printed models), [App SourceCode](#), [Server SourceCode](#).
 2. [YouMp3](#): (Strip MP3 audio from YouTube videos), [App SourceCode](#), [Server SourceCode](#).
 3. [RaiPoll](#): (Analytics calculation for user opinion), [App SourceCode](#).
 4. [SmileyLiveWallpaper](#): (Interactive physics based effects on the home screen).
 5. [Fire Touch Live Wallpaper](#): (Interactive physics based particle effects on the home screen).
 - Best API Integration Award for ESRI ArcGIS, Hackathon at Stanford University June 2013.
 - Graduate education sponsored by Northrop Grumman (M.S.) and Food and Drug Administration (Ph.D.).
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REFERENCES

- www.fahadzafar.com
- www.github.com/fahadzafar (source for 6 recent java projects)
- Apps 1, 2, 3 currently deprecated due to Parse.com shutdown. Source and demo video are still available.