

EDUCATION

Columbia College, Columbia University

Sept. 2011 – Present

Double major in Computer Science (Software Systems track) and Physics. Expected date of graduation: Feb. 2015.

Massachusetts Academy of Math and Science at Worcester Polytechnic Institute

Sept. 2009 – May 2011

WORK / RESEARCH EXPERIENCE

Google Inc. – Associate Product Manager (APM) Intern (Google Search)

June 2014 – Aug. 2014

Responsible for user re-engagement. Performed internal and competitive market analysis, developed product strategy, solution specs & requirements, UI mockups, managed prototype development, & set groundwork for production launch.

Google Inc. – Software Engineering Intern (Google Research, HCI Group)

June 2013 – Aug. 2013

Created Android app for co-browsing between relevant collocated devices, using App Engine server backend & Cloud Messaging (GCM). Assisted in developing device discovery service API specs. Developed UI mockups, prototypes.

Massachusetts Institute of Technology (MIT) Lincoln Laboratory – Summer Intern

July 2012 – Jan. 2013

Designed and created network-enabled laboratory test bench software using LabVIEW and script language translator using C and Python. Assisted in parts/materials logistics management and technical procedure/report development.

Columbia University/Barnard College – Research Assistant (Physics Department)

May 2012 – Aug. 2012

Assisted in developing an audio/video simulator for binary black hole collisions in Mathematica with Dr. Janna Levin

Columbia University Tutoring and Translating Agency (CUTTA) – Academic Tutor

Nov. 2011 – Present

Tutored New York City middle/high school & undergraduate students in Computer Science, Physics, Math, & English

GROUP Business Software, Inc. (GBS) – Software Development Intern

June 2011 – Aug. 2011

Performance tuned SQL database query algorithms, scalability, and structural design for business analytics software, using Microsoft SQL Server 2008. Developed test bench applications in Java (with automated XML & HTML reporting).

Harvard-Smithsonian Center for Astrophysics – Physics Laboratory Technician

June 2010 – Aug. 2010

Assisted in developing increased efficiency x-ray telescope mirrors for use on the International X-ray Observatory.

Designed & programmed electrical laboratory equipment and software systems using LabVIEW and C.

Independent Research – Simulating Pin-to-Plate NanoSpark Discharge

Sept. 2009 – May 2010

Designed & programmed computer model simulating nano-scale spark discharge for enhancing cosmic ray detector precision. Completed in conjunction with WPI Center for Computational NanoScience.

SKILLS

Product & Project Management

Product strategy development & implementation, metrics analysis, UI/UX design & prototyping, product requirements & roadmap development, white-paper development, cross-product area coordination, Agile & Waterfall project management

Computer Science

Application software development for desktop (Windows/Mac OS X/Linux), mobile (Android), & web. Systems software development, networking, programming language/compiler design, & OS programming. Object-oriented & functional programming. Data structures, algorithms analysis, memory management & debugging, parallelism & synchronization.

Programming Languages

Java, C/C++, Python, OCaml, HTML, CSS, (T-)SQL, Assembly, Lisp/Scheme, XML, XSL/XSLT, LabVIEW, Mathematica, MATLAB

Computing Software / Technologies

JIRA, Eclipse IDE (Java, C/C++, Android, App Engine), Android (Google Play Services, GCM, Account authorization, Location API, SDK tools, SQLite), Google App Engine, Git/Subversion/Perforce, MS SQL Server, GNU tools (make, Vim, Valgrind, etc), bash scripting, VMware/VirtualBox, Wireshark, Bootstrap, FFmpeg, Adobe Creative Suite, Microsoft Office

HONORS / AWARDS

Science, Engineering, Technology, and Mathematics

First Place, 2010 MA State Science & Engineering Fair; 2010 U.S. Naval Science Award; National Society for Professional Engineers Innovative Engineering Award; Division Top Scorer, American Computer Science League (ACSL)

Academic Recognitions

2340 SAT Score (99.8th %); National Merit Scholarship Letter of Commendation; National Honor Society

PUBLICATIONS

Khan, A. J. & Bi, K. 2010. Space Travel: Past, Present, and Future. *The Scientia Review* (www.scientiareview.org)

Khan, A. J., Koch, J. M., & Sayeed, A. 2010. "Agent Orange," Topics in Toxicology. *The Scientia Review*

Khan, A. J. 2010 Computer Modeling Pin-to-Plate Nanospark Discharge. *The Scientia Review* (www.scientiareview.org)

EXTRACURRICULAR ACTIVITIES

Columbia University: Application Development Initiative (ADI); Association for Computing Machinery (ACM); IEEE; Columbia Organization of Rising Entrepreneurs (CORE); Representative, Residence Hall Leadership Organization

Prior: President, SHS Physics Team; Programming/electronics team leader, FIRST Robotics Team #467; FIRST Robotics Team #190; American Computer Science League (ACSL), American Regions Mathematics League (ARML)