

# David Gong

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dxjg@jhu.edu  
(217) 722-5937  
dxjg.github.io

<b>EDUCATION</b>	<i>Bachelor of Science</i> in Computer Science at Johns Hopkins University Advisor: Dr. Michael Dinitz Graduation Date: December 2016 GPA: 3.88, Science GPA: 4.0
<b>RESEARCH EXPERIENCE</b>	<div><div><i>Lab Assistant</i></div><div>Sept 2015–Dec 2016</div><div>Integrated Imaging Center, Johns Hopkins University, Baltimore, MD Lab Director: Dr. Michael McCaffery, Ph.D.<ul style="list-style-type: none"><li>• Prepared samples for electron microscopy on the FEI Tecnai 12.</li><li>• Used a Python-based image processing suite (EMAN2) for 3D particle reconstruction.</li><li>• Attempted reconstructions of proteins: DnaBC, <math>\beta</math>-galactosidase, and papillomavirus.</li></ul></div><div><i>Research Assistant</i></div><div>Jan–Aug 2015</div><div>Algorithms and Complexity Group, Johns Hopkins University, Baltimore, MD Advisor: Dr. Michael Dinitz, Ph.D.<ul style="list-style-type: none"><li>• Explored research in computer science theory under an REU grant.</li><li>• Studied expander graphs, geometric spanners, and spectral graph theory.</li><li>• Analyzed the use of greedy algorithms for generating approximate distance oracles.</li></ul></div></div>
<b>MEDICALLY RELATED EXPERIENCE</b>	<div><div><i>Medical Tutorial Program Participant</i></div><div>Spring 2016</div><div>Johns Hopkins Medical Institute, Center for Bariatric Surgery, Baltimore, MD Dr. Kimberley Steele, M.D., Ph.D.<ul style="list-style-type: none"><li>• Assisted with a study on the effect of warm-up exercises on surgeons' performances.</li><li>• Shadowed for 20 hours between observing clinical rounds and bariatric surgeries in the operating room.</li><li>• Observed study on surgical patients' neural responses to different food types.</li></ul></div></div>
<b>WORK EXPERIENCE</b>	<div><div><i>Software Development Intern</i></div><div>May–Dec 2017</div><div>National Compliance Office, Kaiser Permanente, Oakland, CA<ul style="list-style-type: none"><li>• Used SAP BusinessObjects to Design and implement the the CaseTrack Dashboards, a tool for the chief and regional compliance officers for performance analysis.</li><li>• Using SMSS, ASP.NET with C# and Telerik, and HTML/CSS, created a web application, the Pharmacy Drug Loss Report Tool, used for filing and managing cases related to drug loss, waste, and abuse.</li><li>• Explored data science in Python for the internal, annual Data Science Forecasting Challenge.</li></ul></div><div><i>Course Assistant</i></div><div>Department of Computer Science, Johns Hopkins University, Baltimore, MD 600.363/463: Algorithms I</div><div>Spring 2015</div><div><ul style="list-style-type: none"><li>• Hosted office hours for 2 hours/week.</li><li>• Assisted with teaching fundamentals of computer science algorithms and complexity analysis.</li><li>• Graded and provided feedback on written assignments and exams.</li></ul></div></div>

- 600.120: Intermediate Programming Fall 2014
- Hosted office hours for 2 hours/week.
  - Assisted with teaching basic principles of programming, C and C++, using the Unix shell, and creating makefiles and shell scripts.
  - Graded and provided feedback on coding projects and written assignments.

- IT Support* May 2014–Aug 2015
- Information Technology, Johns Hopkins University, Baltimore, MD
- Installed and maintained network points across the Johns Hopkins University undergraduate campus.
  - Assisted with campus-wide technological support by maintaining and servicing the HP Service Manager ticketing system.

## COMMUNITY SERVICE

- Elementary School Tutor* Fall 2016
- Johns Hopkins Tutorial Project, Baltimore, MD
- Center for Social Concern, Johns Hopkins University, Baltimore, MD
- Tutored 1-on-1 with an elementary school student in the basic subjects for 4 hours/week.
  - Curated lesson plans using feedback from my organizer.
  - Submitted periodic progress reports for the tutee's guardian(s).

- Soup Kitchen Volunteer* Summer 2013, Winter 2014
- Daily Bread Soup Kitchen, Champaign, IL
- Prepared/served lunches for the underserved members of the local community.
  - Assisted with locating accessible resources for basic necessities.

## SKILLS

*Relevant Lab Courses:*

General Biology Lab I, General Biology Lab II, General Physics Lab I, General Physics Lab II, General Chemistry I Lab, Introductory Chem. Laboratory II, Intro Organic Chem Lab

*Programming Languages:*

C/C++, HTML/JS/CSS, Python, R, Java, PHP/MySQL, C#, Swift, L<sup>A</sup>T<sub>E</sub>X

*Frameworks & APIs:*

Hadoop!, OpenGL, OpenMP, C Spread, ASP.NET

*Software Tools & Techniques:*

SAP BusinessObjects, SMSS, Telerik, Tableau, Ajax

*Foreign Languages:*

Proficient Chinese, Intermediate Spanish, Basic German

## MISC.

- Theatrical Technician* May 2017
- Confessions of a Coconut, Johns Hopkins University, Baltimore, MD
- Assisted in the showcase of a research-based one-woman show called as the light board and sound operator.
  - Used QLab 4 to program and execute both visual and audio cues.