Benjamin H Glick

Address	415 W Aldine Ave, Apt 10A Chicago, Il 60657	**Mobile Phone**	+1 (312) 391 0727
Nationality	American	**Email**	glick@glick.cloud
LinkedIn	benjamin-glick	**Github**	@benhg
		Website	https://glick.cloud

Goals

To be a team cheerleader and tactician, to use my subject knowledge technical skills and interpersonal skills to take part in valuable projects.

Strengths/Skills

Planning, problem solving, tactics, motivating or inspiring others, anchor of a team or group, ability to develop CS skills, speed at grasping new and complex concepts. Technical skills include python, c, c++,databases, javascript, html/css, java, functional programming including lisp and haskell, network programming, systems software, and LaTeX/TeX

Education

2016-Present Student (BA, Physics & Mathematics/Computer Science, Expected 2020) -
Lewis and Clark College

Relevant Coursework Includes

- Computer Science and Mathematics Courses:
  - Computer Networks and Web Development
  - Computer Architecture and Assembly Languages
  - Computer Graphics
  - Linear Algebra
  - Single-variable and Multi-variable Calculus
  - Independent Study in High Performance Compute Job Optimization
  - Discrete Mathematics
  - Ordinary Differential Equations
  - Partial Differential Equations
  - Algorithm Design and Analysis
  - Distributed Systems and High Performance Computing
  - Software Development
  - Independent study in Distributed Systems Design and Development
- Physics Courses:
  - Mechanics
  - Waves and Matter
  - Electricity and Magnetism
  - Thermodynamics and Statistical Mechanics
  - Experimental Methods in the Physical Sciences
  - Computational Physics
  - Advanced Laboratory Physics
  - Upper Division Classical Mechanics
  - Upper Division Electricity and Magnetism

Mentors and Advisors

- Lab Mentor at University of Chicago/Argonne National Lab: Ian Foster
- College Mentor and Advisor: Jens Mache
- Industry Mentor: Quincy Castro

2012-2016 Student (High School Diploma, 2016) - The University of Chicago Laboratory High School

Experience

Jan 2018 - Present Watzek Library, Lewis and Clark College
Digital Innovation Specialist
Watzek Digital Initiatives handles Lewis & Clark's digital collections and infrastructure, as well as supporting research and academic computing on campus. As DI Specialist, I manage operation of LC's high-performance computing infrastructure, design solutions to help students, staff, and faculty solve digital problems, and assist in maintenance of the library's digital information resources.

May 2019 - Aug. 2019 GE Transportation, A Wabtec Company
Digital Technology Leadership Program Intern
Member of a cloud-based DevOps team, developing an application development and deployment platform using Kubernetes. Designed and implemented role-based authentication systems using OpenID-Connect, developed cloud infrastructure management tools. Also worked on a computer-vision app using Tensorflow and OpenCV.

Jan 2019 - May 2019 Lewis and Clark College
Teaching Assistant
Teaching assistant for Lewis & Clark's CS 495 Parallel and High Performance Computing My duties include teaching classes, holding office hours, providing advice to students, and assisting with design of coursework.

May 2018 - Aug. 2018 General Electric Transportation
Digital Technology Leadership Program Intern
Member of a production cybersecurity team. Designed prototype and proof of concept software and hardware systems. Designed and implemented software solutions for locomotive control computers and the GoLinc platform relating to data collection, encryption, management, and movement. Developed internal tools for security and cost audits of product teams.

June 2017 - Present Parsl Project, Argonne National Laboratory / Computation Institute, University of Chicago
Research Software Engineer
The Parsl research group creates and maintains high-performance computing tools for scientific and data-intensive computing. There, I develop, maintain, and manage tools to make data-intensive and computationally demanding tasks easy to use, secure, and scalable in a variety of computing environments from multicore computers to some of the largest supercomputers in the world. I contribute to development of live projects with active scientific users as well as prototypes for future projects.

Jan 2018 - May 2018 Lewis and Clark College
Teaching Assistant
Teaching assistant for Lewis & Clark's CS 393 Computer Networks course. My duties include teaching classes, holding office hours, providing advice to students, and assisting with design of coursework.

May 2017 - Aug. 2017 Knowledge Lab, University of Chicago / Harvard Business School
Research Assistant
I designed, deployed, and analyzed a survey to scientists which was used to help understand how and why authors cite particular works and whether their citations can be used as a measure of performance in sicence. The survey used proprietary data on millions of scientists and their publications/citations.

Jan. 2017 - May 2017 Lewis & Clark College
Stewart LLC Coordinator
I was responsible for community development in the Stewart residence hall Holistic Wellness Living Learning Community. I planned events, promoted discussion of community guidelines, and worked with the Campus Living staff to ensure that residents felt safe and happy in their residence hall.

June 2016 - Aug. 2016 Globus/Computation Institute, University of Chicago
Summer Intern
Worked on a team to develop a resource for the globus group at the University of Chicago. Devoloped a product which allows scientists to securely search, share, process and access confidential scientific data stored in the globus cloud.

June 2015 - Aug. 2015 Computation Institute, University of Chicago
RDCEP Summer Scholar
Developed and applied skills in Mathematics and Computer Science. Member of a small team of high school interns on projects using large scale data. Developed ability to build my own solutions using mathematical models. Navigate and organize a team with different skills and motivation levels

Talks and Presentations

Oct 2019 ParslFest 2019
Community Engagement - Cyberinfrastructure
Talk about Lewis & Clark College's research computing cyberinfrastructure
Glick B. H. "Parsl and Research Computing Cyberinfrastructure" ParslFest 2019. (Oct 2019)

May 2019 Portland State University CS 406/506 Accelerated Computing
Guest Lecture
Talk introducing use cases of GitHub Pages
Glick B. H. and Mache, J. "Introduction to OpenACC." Guest Lecture in Prof. Karen Karavanic's CS 406/506 Accelerated Computing with GPUs and Intel Phi, Spring 19. (May 2019)

May 2019 Lewis & Clark College FTI
Short Talk
Talk introducing use cases of GitHub Pages
Glick, B.H."Jupyter Notebooks" Short Talk at Lewis & Clark College FTI (Faculty Technology Institute) 2019. (May 2019)

May 2019 Lewis & Clark College FTI
Short Talk
Talk introducing use cases of Jupyter Notebooks
Glick, B.H."Jupyter Notebooks" Short Talk at Lewis & Clark College FTI (Faculty Technology Institute) 2019. (May 2019)

Apr. 2019 Lewis & Clark College ACM Student Chapter
Workshop
Hands-on workshop introducing the fundamentals of robotics and embedded devices engineering through Poembot.
Bhatia, R.P. and **Glick, B.H.** "Poembot: Behind the Scenes." Student Led Workshop hosted by Lewis & Clark College ACM Student Chapter

Apr. 2019 ML4All 2019
Lightning Talk
Talk on the uses of machine learning, as applied to the scheduling of high performance computing jobs.
Glick, B.H. "Everyone's Feeding Text. We feed Code (Machine Learning for Static Code Analysis)" (Lightning Talk). At ML4ALL 2019 (Apr. 2019)

Apr. 2019 Lewis & Clark College Festival of Scholars and Artists, 2019
Talk
Talk on the uses of machine learning, as applied to the scheduling of high performance computing jobs.
Glick, B.H. "Applications of Machine Learning to High Performance Job Scheduling". In Program of the Festival of Scholars and Artists, 2019 (Apr. 2019).

Jan. 2019 Lewis & Clark College ACM Student Chapter
Workshop
Hands-on bioinfomatics and biocomputing workshop on the basics of how to write code and draw conclusions from genomic and other biological data.
Somers, J. and **Glick, B.H.** "Intro to Biocomputing." Student Led Workshop hosted by Lewis & Clark College ACM Student Chapter

Nov 2018 SC '18
Lightning Talk
Lightning talk for students about research in accessibility of high-performance computing systems to people of varying computational experience.

May 2018 Lewis & Clark College Faculty Technology Institute
Oral Presentation
Talk introducing the applications and opportunities associated with High Performance Computing, focused on how LC faculty may be interested in HPC..
McWilliams, J. A., **Glick, B.H.**, Abbaspour, P. High Performance Computing at L&C. In *Program of Faculty Technology Institute, 2018* (May 2018). DOI: 10.13140/RG.2.2.35801.01125

May 2018 Lewis & Clark College Faculty Technology Institute
Oral Presentation
Talk introducing the applications and opportunities associated with High Performance Computing, focused on how LC faculty may be interested in HPC..
McWilliams, J. A., **Glick, B.H.**, Abbaspour, P. High Performance Computing at L&C. In *Program of Faculty Technology Institute, 2018* (May 2018). DOI: 10.13140/RG.2.2.35801.01125

Apr. 2018 Lewis & Clark College Festival of Scholars and Artists
Oral Presentation
Talk introducing the applications and opportunities associated with High Performance Computing, specifically relating to how and why Lewis & Clark students, staff and faculty might utilize HPC.
Glick, B.H. A Gentle Introduction to High Performance Computing. In *Program of the Festival of Scholars and Artists, 2018* (Apr. 2018). DOI: 10.13140/RG.2.2.35801.01125

Mar. 2018 Oregon Academy of Science
Oral Presentation
Work relating to Accessibile High-Performance Computing presented at Oregon Academy of Science annual meeting.
Glick, B.H. and Mache, J. Building an Accessible Web-Based Frontend for High-Performance Clusters. In *Proceedings of the Oregon Academy of Science.* (Mar. 2018). DOI: 10.13140/RG.2.2.24328.11528

Publications

Nov. 2019 SC '19/ EduHPC '19
Workshop Paper
Article describing high-performance computing applied to a novel Computational Statistical Mechanics accepted to Workshop on Education and High Performance Computing 2019 (EduHPC 19), at SC '19.
Ben Glick, **Brian Smith** and Jens Mache. 2018. *A Jupyter Notebook Based Tool for Building Skills in Computational Statistical Mechanics* Workshop on High Performance Computing and Education, 2019 (EduHPC '19), at the International Conference for High Performance Computing, Networking, Storage and Analysis (SC '19) (Nov. 2018).

Oct. 2019 Consortium of the Computing Sciences in Colleges
Paper
Paper describing an open-source distributed system designed to keep track of digital objects for long-term resilient storage and archival accepted for presentation at the CCSC-NW 2019 conference. Paper will be published in Journal of the Computing Sciences in Colleges.
Glick, B.H. and Mache, J. "LIBRE-ary: An Open-Source, Distributed Digital Archiving System." In *Proceedings of the Conference of the Northwest Regional Consortium of Computing Sciences in Colleges.* (Oct. 2019)

Oct. 2019 Consortium of the Computing Sciences in Colleges
Poster
Poster describing a repository of common errors and dependencies, as found in OpenACC accepted for presentation at CCSC-NW 2019.

May 2019 EduPar 19, at the IEEE International Parallel and Distributed Processing Symposium
Short Paper
Work relating to computational physics and research computing education published at the 33rd IPDPS.
Glick, B.H. and Mache, J. "Finding the Electric Potential of a Square Wire" (Peachy Parallel Assignment). In *Proceedings of The 9th NSF/TCPP Workshop on Parallel and Distributed Computing Education (EduPar-19)* (May 2019)

Feb. 2019 Oregon Academy of Science
Abstract and Oral Presentation
Abstract and talk describing a novel approach to HPC job scheduling, using machine learning to predict HPC job behavior in order to create a more intelligent execution schedule.
Glick, B. H. and Mache, J. "Using Machine Learning to Enable Job-Aware Scheduling". In *Proceedings of the Oregon Academy of Science* (Feb. 2019)

Nov. 2018 SC '18/ EduHPC '18
Workshop Paper
Article describing high-performance computing workflow optimization platform, specifically designed to provide an HPC environment conducive to educational computing accepted to Workshop on Education and High Performance Computing 2018 (EduHPC 18), at SC '18.
Ben Glick and Jens Mache. 2018. *Jupyter Notebooks and User-Friendly HPC Access* Workshop on High Performance Computing and Education, 2018 (EduHPC '18), at the International Conference for High Performance Computing, Networking, Storage and Analysis (SC '18) (Nov. 2018). DOI 10.1109/EduHPC.2018.00005. https://ieeexplore.ieee.org/document/8638386

Oct. 2018 Consortium of the Computing Sciences in Colleges, Northwest Region.
Poster and Award
Poster describing computational platform for providing researchers and students with access to high-performance computing resources without requiring technical knowledge about the underlying HPC software and hardware presented at CCSC-NW meeting and won best student poster award for 2018 meeting.

Oct. 2018 Journal of Computing Sciences in Colleges
Journal Article

Article describing an open-source course curriculum and additional teaching materials published in J. Comput. Sci. Coll.
Ben Glick and Jens Mache. 2018. *Using jupyter notebooks to learn high-performance computing.* J. Comput. Sci. Coll. 34, 1 (October 2018), 180-188. (Oct. 2018) https://dl.acm.org/citation.cfm?id=3280518

Oct. 2018 Consortium of the Computing Sciences in Colleges
Paper

Paper describing an open-source course curriculum and additional teaching materials accepted to the Northwest regional Conference of the Consortium of the Computing Sciences in Colleges. Paper presents an interactive course meant to be either taught or used on a self-guided basis. Paper will be published in Journal of the Computing Sciences in Colleges.
Glick, B.H. and Mache, J. USING JUPYTER NOTEBOOKS TO LEARN HIGH-PERFORMANCE COMPUTING. In *Proceedings of the Conference of the Northwest Regional Consortium of Computing Sciences in Colleges.* (Oct. 2018)

Aug. 2018 The International Conference on Parallel Processing
Paper

Poster and Paper describing an extensible ecosystem of accessibility tools for convenient HPC use without complex command line skills.
Glick, B.H. and Mache, J. An Extensible Ecosystem of Tools Providing User Friendly HPC Access and Supporting Jupyter Notebooks. In *Proceedings of The International Conference on Parallel Processing.* (Aug. 2018). http://oaciss.uoregon.edu/icpp18/views/includes/files/pos107s1-file1.pdf.

Mar. 2018 Oregon Academy of Science
Abstract for Oral Presentation

Work relating to Accessibile High-Performance Computing published at Oregon Academy of Science.
Glick, B.H. and Mache, J. Building an Accessible Web-Based Frontend for High-Performance Clusters. In *Proceedings of the Oregon Academy of Science.* (Mar. 2018). DOI: 10.13140/RG.2.2.24328.11528

Nov. 2017 IEEE and ACM SIGHPC
Poster

Work relating to cloud computing infrastructure published at SC 2017.
Glick, B.H., Babuji, Y.N., and Chard, K. 2017. Scalable Parallel Scripting in the Cloud. In *Proceedings of the International Conference for High Performance Computing, Networking, Storage and Analysis (SC '17).* (Nov. 2017). 2 Pages. DOI: 10.13140/RG.2.2.20048.81922

Awards, Group Memberships, and Recognition

Jan. 2019 – Present Lewis & Clark College
Membership

Joined a curricular development committee responsible for designing, implementing, and marketing a new interdisciplinary data sciences program including a new data science major, a new data science minor, and new data and computational sciences center.

Sep. 2018 – Present Lewis & Clark College
Membership

Joined a curricular development committee responsible for redesigning and reimplementing natural sciences requirements at Lewis & Clark College.

Jan. 2018 - Present Lewis & Clark College Student ACM Chapter
Founder and Chair
I am the founding chair of the Lewis & Clark College ACM Student Chapter. The ACM Chapter oversees all extracurricular computer science related activity, including organizing teams for competitions, hosting speakers and career events, and a colloquium series on topics in the computing sciences.

Sep. 2017- Present Python Software Foundation
Membership
Became a contributing member (voting membership) of the Python Software Foundation by invitation.

Sep. 2017 Lewis & Clark College
Special Selection
Selected to be a member of the Lewis & Clark College Council on Advanced Research in Data Science

Jun. 2017- Present The Association of Computing Machinery
Membership
Became a member of the Association for Computing Machinery and ACM SIGHPC Special Interest Group in High-Performance Computing.

May. 2017- Present Institute of Electrical and Electronics Engineers
Membership
Became a member of the Institute of Electrical and Electronics Engineers (IEEE)

May 2017 Lewis & Clark College
Award
Dean's list, 2017 Spring.

April 2017 National Cyber League
Competition
Placed 60th (out of 2000) in the 2017 Spring National Cyber League cybersecurity competition.

April 2017 National Cyber League Team Competition
Competition
Placed 38th in the 2017 Spring National Cyber League team cybersecurity competition.

Feb. 2017 Pacific Rim Regional Cyber Defence Competition
Competition
Placed 3rd in the 2017 Pacific Rim Regional Cyber Defence Competition.

Activities

Jan. 2018 - Present Lewis & Clark College Student ACM Chapter
Founder and Chair
I am the founding chair of the Lewis & Clark College ACM Student Chapter. The ACM Chapter oversees all extracurricular computer science related activity, including organizing teams for competitions, hosting speakers and career events, and a colloquium series on topics in the computing sciences.

Jan. 2018 - Present Lewis & Clark College Fire Arts Club
Vice President and Financial Officer
I am an officer of the Fire Arts Club at Lewis & Clark. I am responsible for planning and safely executing fire arts performances, ensuring that our club is a safe and welcoming environment, and ensuring that the budget remains balanced.

Sep. 2004 - Present Brett Wolf Judo/Menomonee Judo Club
Senpai/Judoka
Competed at National Level, Taught beginner students, disabled students, and military veterans. Learned leadership skills through mentoring and coaching younger teammates. Learned to teach in an adaptive way from working around people's various abilities. Developed ability to approach events in my life with a belief system that helps me have empathy and integrity.

Sep. 2015 - Jun. 2016 University of Chicago Laboratory High School
Board Member, Computer Science Club (Code@Lab)
Founding board memeber of the U-High computer science club (code@lab). Responsible for planning club activities and meetings, as well as engaging and recruiting members.

Aug. 2015 - June 2016 University of Chicago Laboratory High School
Member, Varsity Soccer Team
Joined team as a senior, learned how to be a valuable part of the team despite my soccer technical skills not being as good as others'. Developed tactics and helped to implement small tactical fixes. helped younger players adjust and gave them someone to relate to.