JENIFER A. BROWN

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SUMMARY HIGHLIGHT

A scientific researcher turned software engineer with over 10 years of laboratory experience. I have a rigorous technical and analytical background, and a knack for solving challenging problems. I am eager to create technology that is accessible to everyone, participate in product design and creation, and advance existing technologies.

- Experience creating and maintaining collaborations between groups within an institution
- Project management skills developed while working on multiple projects at once
- Excellent written and oral communication skills for scientific and lay audiences, both large and small
- Experience with Java, HTML, CSS, JavaScript, React, Git, IntelliJ IDEA, and Visual Studio
- Android (mobile) app development and web app development
- Ability to debug, optimize code, troubleshoot, and automate tasks

EDUCATION

Stanford University School of Medicine *September 2016 – June 2021 PhD, Biophysics* – GPA: **3.95/4.00**
Crystallographic studies of 2'3'-cGAMP hydrolysis by ectonucleotide pyrophosphatase/phosphodiesterase 1

- GRE: Verbal Reasoning: 166, 96th percentile; Quantitative Reasoning: 165, 90th percentile; Writing: 5.0, 93rd percentile

Harvard University *September 2011 - May 2015 BA, Chemistry; Honors Thesis* – GPA: **3.73/4.00**

FELLOWSHIPS & GRANTS

National Science Foundation Graduate Research Fellowships Program (NSF GRFP) *2017 - 2021*

- Recognizes and supports outstanding graduate students in NSF-supported science, technology, engineering, and mathematics disciplines who are pursuing research-based doctoral degrees
- **1 of 2,000 awarded students selected from a pool of over 13,000 applicants**

WORK EXPERIENCE

Microsoft, Software Developer II *August 2022 – Present*

- Debugging, troubleshooting, implementing and improving new features on the Azure Machine Learning/Artificial Intelligence Platform

Google Tech Training Fellowship, Web Development Fellow *January 2022 - Present*

- Yearlong paid fellowship program designed to increase diversity in the tech field
- Building JavaScript, HTML, and CSS skills while growing a professional portfolio and network

Stanford University, PhD Thesis Lab *January 2017 – June 2021*
Crystallographic studies of 2'3'-cGAMP hydrolysis by ectonucleotide pyrophosphatase/phosphodiesterase 1
Mentor: Dr. Lingyin Li, Department of Biochemistry, ChEM-H Fellow

- **Researched, planned, executed, and troubleshooted** protein construct design, purification methodologies, and crystallization. Probed protein-protein interactions using SPR (Biacore T200), ELISAs, and Western Blots.
- Published two papers describing small molecule interactions with ENPP1 via X-ray crystal structures and activity assays
- **Coordinated and maintained collaborations** with Stanford's Macromolecular Structure Knowledge Center

- Composed and presented summaries of published journal articles and my research for Stanford's Biochemistry Department

Stanford Office of Technology Licensing, Technology Licensing Intern *December 2020 – June 2021*

- Corresponded with faculty and technology licensing associates to help the business development and marketing team draft, refine, publish, and otherwise distribute marketing abstracts.
- **Evaluated incoming invention disclosures**, including patent landscape and potential markets
- **Conducted market research** to evaluate invention portfolios: including competitive intelligence analysis, partnering opportunity identification, and targeted marketing campaigns.
- Collaborated within to engage with inventors, other Stanford stakeholders, and conference organizers to prepare for industry partnering events.
- Analyzed and created marketing materials for **over 20 inventions**, leading to several inquiries and at least **1 licensing agreement**

Genentech, Early Discovery Biochemistry Intern *South San Francisco, CA June 2019 – August 2019*
Mentors: Elizabeth Helgason, Dr. Erin Dueber, Early Discovery Biochemistry Department

- Supported and advanced on-going research by cloning and purifying protein constructs, analyzing protein-protein interactions using surface plasmon resonance (SPR) and biolayer interferometry, and solving two sub-2Å crystal structures
- **Presented final results to the head of the Early Discovery Biochemistry Department**

Stanford University ADVANCE Summer Program *July 2016 – September 2016*
Creation of an in vivo sensor of CAT-tail aggregation Mentor: Dr. Onn Brandman, Biochemistry Department

- Started graduate school early with a two-month program for incoming underrepresented graduate students. Engaged in workshops, an R programming course, and community dialogues
- Worked in Dr. Brandman's lab as a rotation student designing and generating a molecular tool for future studies

PUBLICATIONS & PRESENTATIONS

Structure-Aided Development of Small-Molecule Inhibitors of ENPP1, the Extracellular Phosphodiesterase of the Immunotransmitter cGAMP.
Carozza, J.A., Brown, J.A., Böhnert, V., Fernandez, D., AlSaif, Y., Mardjuki. R.E., Smith. M., Li. L. Cell Chem Biol. 2020.

Extracellular cGAMP is a cancer-cell-produced immunotransmitter involved in radiation-induced anticancer immunity.
Carozza, J.A., Böhnert, V., Nguyen, K.C. *et al.* Nat Cancer. 2020.

Annual Biomedical Research Conference for Minority Students, November 2019, Anaheim, CA

15th Annual Biophysics and Molecular Structure Course, Student Presenter, May 2017, Erice, Italy**.**
Engineered Chimeric Natural Resistance-Associated Macrophage Protein (Nramp) for Co-Crystallization.
Brown, J.A., Bane, L., Gaudet, R.

SKILLS & INTERESTS

Skills: Java (Fluent), C++ (Intermediate), JavaScript (Beginner), Python (Beginner), Microsoft Office Suite (Word, Excel, PowerPoint, etc.), quick learner, excellent written communication, public speaking experience
Other Interests: Travel (**Spain, England, China, Germany, Morocco,** and more), guitar, solo backpacking (Continental Divide Trail 2021), oil painting, running (**American Tobacco Trail Marathon Finisher 2022, Crystal Springs Half Marathon Trail Race Finisher 2019, Lake Tahoe Triathlon Relay Finisher 2018**)