Alison Adams Martinez, Ph.D.

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Education

➥ **Ph.D., Genetics**	The University of Chicago	Chicago, IL	6/06
➥ **B.S., Microbiology**	The Pennsylvania State University	University Park, PA	6/01
➥ **Software Engineering**	Launch School	Remote	10/22

Analytical and Engineering Experience

☞ **Test Lab Co-Creator and Software Engineer** Remote 11/22 - Present

- Collaborated with three other developers on the creation, design, and implementation of Test Lab, an open-source, self-hosted platform for creating and managing feature toggles, rollouts, and experiments.
- Developed native Node, React, Ruby, and Python SDKs for Test Lab, with assignment logic to evaluate features and allow rendering of user-specific variants while ensuring the integrity of A/B experiments.
- Co-developed the Test Lab backend server, which exposes RESTful APIs for creating and managing features, users, and experiment-related events.
- Dockerized the Test Lab Node backend server, React frontend UI, and PostgreSQL database, available on the AWS Elastic Container Registry for easy deployment on virtual private servers or AWS ECS.
- Authored the Test Lab case study and documentation, available at TestL-ab.github.io .

☞ **Senior Technology Licensing Officer** The Pennsylvania State University Remote 10/20 - 12/22

- Evaluated innovations in terms of intellectual property strength, significance, commercial impact, technical feasibility, and value proposition compared to existing and pipeline competitors, focusing on novel pharmaceuticals, biotech, medical devices, and innovations applicable to the healthcare sector.
- Provided actionable feedback and recommendations to inventors on potential improvements to their projects and proposals, including research design, commercialization strategy, and product positioning.

☞ **Geneticist and Clinical Data Specialist** Oklahoma Health Care Authority Remote 2/11 - 10/20

- Developed new software tools to allow for increased efficiency and functionality in handling large and complex data sets, with a special interest in Perl, R, Google Motion Charts, Circos, and 3M PPE tools.
- Evaluated the analytical validity, clinical validity, and clinical utility of emerging genetic technologies, including FDA-approved products and proprietary, lab-developed tests.

☞ **Life Science Consultant and Project Manager** L.E.K. Consulting Chicago, IL 9/06 - 4/10

- Developed market models, pharmacoeconomic evaluations, and other analytic approaches to quantify the value of innovative technologies and financial impact of recommended strategies.
- Conducted rigorous analysis of pharma, biotech, and medical device market segments to determine the current treatment paradigm, competitive landscape, emerging technologies, IP status, reimbursement environment, and unmet needs across various therapeutic and diagnostic areas.
- Synthesized team findings into actionable recommendations and presented those findings to clients ranging from start-ups to multi-billion dollar pharmaceutical, biotech, and medical device corporations.

☞ **Doctoral Researcher** The University of Chicago Chicago, IL 9/01 - 6/06

- Gained proficiency in C, C++, Perl, and scientific writing in LaTeX, with a focus on optimizing existing software and creating new scripts to analyze genetic data and present results in an informative manner.
- Collaborated with fellow graduate students and professors on the design, implementation, visualization, and publication of novel scientific work.

Publications

✎ Adams, A. and R. R. Hudson, 2004. Maximum-Likelihood Estimation of Demographic Parameters Using the Frequency Spectrum of Unlinked Single-Nucleotide Polymorphisms. Genetics 168: 1699-1712.

✎ Voight, B., A. Adams, et al., 2005. Interrogating Multiple Aspects of Variation in a Full Re-sequencing Data Set to Infer Human Population Size Changes. Proc. Natl. Acad. Sci. USA 102: 18508-18513.