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

ANALYTICAL AND ENGINEERING EXPERIENCE

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

· Collaborated with a team of three other engineers on the creation, design, and implementation of an open-source, self-hosted platform for creating and managing feature toggles, rollouts, and experiments.

· Developed and published native Node, React, Ruby, and Python SDK packages, with assignment logic to evaluate features and render user-specific variants while ensuring concurrent experiment integrity.

· Prototyped and developed the Test Lab backend server, which exposes RESTful APIs for creating, managing, and retrieving features, users, and experiment-related events stored in PostgreSQL.

· Dockerized the Test Lab Node backend server, React frontend UI, and PostgreSQL database and published all images on AWS public ECR for one-line deployment on virtual private servers or AWS ECS.

· Authored the Test Lab case study and technical 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.

LANGUAGES AND TECHNICAL SKILLS

✓ **Backend:** C++, Perl, R, Ruby, Go, Java, Python, PostgreSQL, MongoDB, RESTful APIs, Node.js, Express, Sinatra

✓ **Front end:** JavaScript, TypeScript, React/Redux, HTML/CSS, Next.js, Tailwind CSS

✓ **Other Tools:** Git/GitHub, Docker, Linux, Bash, DigitalOcean, AWS ECS, AWS EC2, nginx