

Executive Summary

November 21, 2014

Prepared by data2insight LLC

Data2insight, an independent data science firm, was retained by the Technology Alliance to conduct an evaluation of the **inaugural Ada internship program** from August to October 2014. The purpose of the evaluation was to further develop and improve the program by answering program staff questions focused on four areas: 1) effective matching of intern and sponsor company; 2) quality internship management; 3) Ada interns' software development knowledge and skill; and 4) retention and job satisfaction of women in sponsor companies.

The evaluation team in partnership with Ada staff collected intern and company mid-point evaluations, intern hiring data, and sponsor company leader and intern interviews.

Key evaluation findings

- **Ada placed all interns from first cohort into software development positions**

Nearly half (7) of Ada interns were hired into a software development role at the company with which they were matched. All 15 interns started in a software development job following internship completion. Company evaluations of interns showed that nearly all met or exceeded expectations in three key organizational culture areas:

- Contributes strongly to team culture (13)
- Seeks to learn and improve continuously (14)
- Displays a positive and collaborative attitude (14)

These are representative quotes from interviews conducted with sponsor company leaders (N=8) and Ada interns (N=10):

“Just a year ago, we were all in like such different places and I don't really know where I'll be in 5 or 10 years; but I imagine that it will still be in this new realm.”

-Pioneering Adie

“It's increased our capacity . . . She's been a good asset for us. She's taken on a lot of really important work and run with it.”

-Pioneering Sponsoring Company Leader

- **Further development of the internship management process will better meet needs of interns, sponsor companies, and Technology Alliance**

Nearly all interns identified the need to better clarify expectations of sponsor companies and interns during the internship process. All interns indicated the need to improve the formal evaluation process and ongoing learning opportunities during the internship. Nevertheless, the Adie community was highly valued by all interns and identified as a program strength.

- **Software development training provided a strong foundation for intern success in the workplace**

Overall, interns and sponsor companies were satisfied with software development knowledge and skill at internship start. Going forward, both interns and sponsor companies suggested curriculum refinement consisting of adding computer science fundamentals (now included in the second Ada cohort training) to the strong web development training. Interns indicated that Ada training not only provided them with software development knowledge and skill, but also the ability to problem solve and learn new languages. Furthermore, most sponsoring companies rated interns as meeting or exceeding expectations in the following areas of code craftsmanship:

- Writes clean, readable, well-documented code (15)
- Writes code that works efficiently (12)
- Writes appropriate tests (11)

- **Interns experienced climates at sponsor companies that ranged from very supportive to very unsupportive of women**

Eight (53%) interns indicated that their sponsor company was very supportive of women, five (33%) interns indicated it was somewhat supportive, one indicated it was somewhat unsupportive, and one indicated the environment was very unsupportive of women. Several interns mentioned supportive relationships with mentors as critical to successfully navigating work environments. Interns who reported negative interactions with sponsor company employees had interactions that ranged from insensitive comments or difficulty being heard to sexist or hostile comments that resulted in interns feeling uncomfortable at work. Two interns observed that their sponsor companies appeared to have difficulty retaining women. Going forward, Ada has a role to play moving the needle in terms of creating team climates at all sponsor companies that are, at a minimum, supportive of women.

Conclusions and recommendations

At the end of the day, interns interviewed consistently expressed their appreciation for being part of the Ada program and community from start to finish. None regretted making the decision to become a member for the inaugural Adie cohort. This comment captures what nearly all felt as they wrapped up the internship:

“[Ada staff] believed in us and they provided this opportunity and, you know, we all can have complaints and we all had different sort of struggles through it but this changed everyone’s lives.”

This quote hopefully will remind Ada staff of the importance of the program’s work. You are in the life change and organization change business and with that comes great power and responsibility.

Data2insight offers the following evidence-based conclusions and recommendations for Ada staff and board to consider as they contemplate how to build on the strengths of the inaugural program. These recommendations are intended to be used to improve the second internship phase of the program in these four areas: 1) quality internship management; 2) effective matching of intern and sponsor company; 3) Ada interns’ software development knowledge and skill; and 4) retention and job satisfaction of women in sponsor companies.

We also recommend that Technology Alliance continue to invest in ongoing third-party evaluation of the Ada program that includes exit interviews with participating managers, mentors and interns for the purpose of continuous improvement of the program.

Quality internship management

Document interview, introduction, and onboarding processes used for cohort 1 and make refinements to that process based on evaluation findings and recommendations based on research and best practices.



Recommendations checklist

- 1. Ensure that sponsor companies are aware of Ada’s purpose and the program’s benefits and responsibilities**
- 2. Assess existing and prospective sponsor company’s internal organizational resources available to manage the internship**
- 3. Determine appropriate formality of structure for internship at each sponsor company**

4. Continue to improve training curriculum based on feedback from Adies and sponsor companies
5. Identify and engage sponsor company mentors during the training program
6. Identify internship projects at each sponsor company prior to initial interviews
7. Build Adies' confidence
8. Continue to refine and define the internship program design to be supportive of both Adie and sponsor company needs
9. Draw on outside experts to provide career coaching and human resources support
10. Develop a protocol for Ada staff to support internship management
11. Develop and use an onboarding checklist for sponsor company managers and mentors
12. Create a great first day for all Adies
13. Reflect on the naming of the program (internship versus cooperative)

Effective matching of intern and sponsor company

Assessing sponsor company readiness for attracting and retaining women and checking in sooner after placement is key to increasing the number of interns who ultimately accept offers at sponsor companies.

14. Create a readiness assessment tool for evaluating sponsor companies readiness to attract and retain women in software development roles
15. A 30-day check-in with an Ada advisor, sponsor company manager, and mentor to help to identify issues early and make timely course corrections where needed

Adie software development knowledge and skill

Ada software development training was identified as a program strength. It is important to continue to develop this strength in order to stay credible and relevant as an effective and efficient job-driven training program.

16. Create a curriculum development process that includes gathering data from interns and company managers each year to inform development
17. Identify third-party individuals and/or groups who can serve as advisors and reviewers of the curriculum

Retention and job satisfaction of women in sponsor companies

Ada staff can help all sponsor companies be more like those who have created very supportive team climates for interns.

- 18. Set a target to help all sponsor companies increase the degree to which the company culture/climate is supportive of women in software development; collect sponsor company data on women in technical roles and report annually**
- 19. Collect sponsor company data on women in technical roles and report annually**
- 20. Provide training for intern managers and mentors to improve the effectiveness of the internship**
- 21. Schedule high profile women technologists to speak at sponsor companies**
- 22. Continue to build the Ada community and its involvement in the open source community, especially the mentorship component**
- 23. Seek funding for a workshop or conference focused on career path experiences and challenges facing women technologists**
- 24. Support development of Lean In Circles¹ at sponsor companies, and if they already exist, coordinate involvement of Adies in these groups**

¹ Circles 2.0: Lean In Circles. (2014). Retrieved November 07, 2014, from <http://cdn.leanincircles.org/>.