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Boulder, CO

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Solving the Software Development Talent Pipeline Crisis

A WHITE PAPER BY THE TECHTONIC ACADEMY

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What Everyone In Software Is Talking About

(Except the Solution)

Software companies are acutely aware that most software development is learned on the job. Even the best students coming out of the top colleges with Computer Science degrees will need ramp time to become proficient in a given technology.

Industry research shows that the average entry-level software developer takes 6-8 months to ramp-up and become a full contributor.

If that weren't enough of a problem, finding top-level talent is even a bigger issue. According to the Bureau of Labor Statistics, the national unemployment rate among software developers and engineers was just 2.5% in the fourth quarter of 2014, compared with a national joblessness rate of 5.7%. Finding talent is a full-time battle and wage inflation is out of control even for entry-level programmers. The problem is only forecasted to get worse. The Bureau of Labor Statistics projects a whopping 22.8 percent employment growth for software developers between 2012 and 2022, which is much faster than average for all occupations. There is also a strong desire to hire women and minorities into technical roles. However, High Schools, Colleges and Boot Camps can't churn out graduates fast enough to fill the void. All this adds up to equal a huge demand for top level software developers.

Even though the outlook for our talent needs appears bleak, there is a solution.

We have discovered an untapped talent pool that can be mobilized to fill the talent gap.
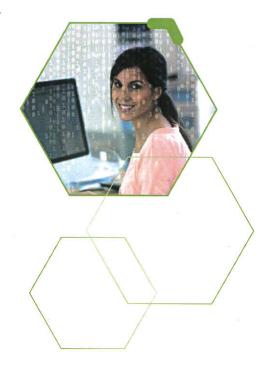
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Techtonic Academy
Developing New Talent Channels

Techtonic Academy was developed to specifically address the talent deficiency in software development. Techtonic Group has a program that benefits our business, our clients, and our community. This is a rare win-win-win situation.

At Techtonic Academy we are proving that anyone with desire and a passion for software development can become successful in this field.

We are specifically targeting young populations that may not have had the means for higher education or chose the military as a career. And we are teaching them how to be great software developers.

For example, today there are tens of thousands of underemployed youth and Veterans who do not have the economic means to attend a software boot camp (which can cost from $20,000-$30,000) but have the desire, aptitude, and ability to become software developers. Techtonic Group has created a proprietary system to identify promising developer talent. After qualified candidates complete a rigorous training they are moved into a software development apprenticeship program which gives them progressively more and more complicated tasks. After approximately 6 months, successful Techtonic Group Apprentices graduate to the status of Jr. Developer. During the apprenticeship program they are paid a livable wage and work beside seasoned developers.

Apprentices have unprecedented access to real world learning opportunities on real projects with real clients and deadlines. And, of course, a fully stocked kitchen.

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Building a Talent Pipeline
for Clients

Not only is this apprentice program beneficial to the Techtonic Group talent pipeline but to clients as well. The Techtonic Academy results in lower client fees and potential new team members for a client's in-house development team. When clients hire Techtonic Group for their outsourced software needs they will always have a senior developer architecting and overseeing the application development. The rest of the team will be rounded out with mid-level and Jr. Developers. Techtonic Group bills out local Jr. Developers at rates comparable to offshore development shops. At the end of an 8 month engagement, clients will have the option to hire those Jr. Developers as their own employees. This gives Techtonic Group clients the opportunity to hire people with knowledge of their systems and Techtonic Academy Jr. Developers the opportunity to advance their career.

"A bachelor's degree in computer science is a good idea, but a degree alone does not a coder make," says Heather Terenzio, CEO of Techtonic Group. "Employers look at track records– someone from a great school with no outside coding projects or interesting technical accomplishments is seen as a project that will need ramp up over time. Compare this with someone who is a rock star coder with no degree but a huge list of achievements – that's an appealing and easy hire.

Clients find that developers coming out of the TGA program are loyal, knowledgeable and have a strong work ethic. Graduates have at least one year of software experience, have seen a variety of real-world development projects, and worked with a variety of tools and technologies. Graduates understand the importance of deadlines, meeting client expectations and working within a real office environment – skills that cannot be taught by any bootcamp or university. Typical starting salaries when clients convert TGA graduates to employees are around $45,000-50,000 per year.

THE BENEFITS:

1. A solid pipeline of junior and mid-level talent who are contributing team members on their first day!
2. Help a young adult or Veteran a chance at a rewarding and lucrative career
3. Break the cycle of poverty among Colorado youths
4. Hire more women and minority talent.
5. Give back to a veteran who has served our country
6. Gain a loyal and grateful workforce
7. Lower your talent recruiting costs
8. Employees who are trained in soft skills such as being on time, professional dress and office etiquette.
9. "Try before you buy" software developers
10. Developers who understand Agile methodologies

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CASE STUDY
Breaking the Cycle of Poverty

"I never would have imagined that a career like this was even a possibility. Techtonic Academy has literally changed my life." Jose is the son of a janitor and lives in a 2 bedroom house with 6 relatives. He went to 1 year of community college with a focus in software development but found the costs prohibitive. Jose dropped out of college and was working at a restaurant when he applied to Techtonic Academy. He was hired as an apprentice and quickly started contributing to his Drupal team. Within 6 months he was promoted to Jr. Developer and was overseeing 2 new apprentices. He is currently an employee of Techtonic Group working on a large, complex .Net project.

CLIENT CASE STUDY
Building Great Software and a Reliable Pipeline Of Employees

A large Health Care technology company in Denver, Colorado has open requisitions for 20-30 developers per year. They have a full time recruiter on staff and retain several expensive staffing search companies. The timeline to find good talent is excruciatingly long. Employees are frustrated and internal morale is low because they are understaffed. They outsourced one of their mission critical .Net projects to Techtonic Group. This particular project required 1 Senior developer, 3 mid-level developers and 4 Jr. Developers. They have since hired 3 of the 4 junior developers. At the client's request, Techtonic Academy has also added 2 Jr. Developers to the team with the intention of hiring them as full time team members. The end result, is that they have a quality software product, that was developed for a reasonable rate, and has added 3 (and potentially more) loyal and trained members to their workforce for less than they would have paid a recruiter. In Techtonic Academy, they have found a reliable source of talent to develop other products within their company.

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Who Is Benefitting?

Trailblazing companies already taking advantage of a new way to develop software and recruit talent with Techtonic Academy:

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