



INDIA

Need to upskill computing graduates inspires 'boot camp'

Shuriah Niazi 08 June 2019

India has a surfeit of software engineers and America needs more. This supply and demand situation, along with steep differences in earnings in the United States and the Indian subcontinent, is inspiring growth in the number of 'remote' US jobs for software engineers in India. But there is a gap in coding skill levels between the countries, creating a need for upskilling.

Pesto Tech is a start-up located in the financial and technology hub of Gurugram, south-west of New Delhi, which is "focusing on upskilling India's five million software engineers and pairing them with the world's top tech companies", says its website.

Co-founded by two college drop-outs – Indian Ayush Jaiswal and American Andrew Linfoot – the company offers intensive 12-week training.

"We have developed an India-specific curriculum that not only teaches software development but focuses on bridging cultural gaps and being an effective remote employee," writes Linfoot in an **article** for the Hackernoon website.

"We run our training programme overnight, allowing us to bring in expert engineers via live stream from Silicon Valley and to prepare students for the time zone adjustments that may be necessary to collaborate remotely with their future US-based teammates."

It seems that universities in India have something to answer for regarding the proficiency of their computer software graduates.

A recent **article** in *University World News* highlighted a similar problem in Africa, where a rapidly expanding start-up offers an online coding bootcamp for programmers under the supervision of mentor experts in software engineering. HyperionDev was a response to an average 88% drop-out rate from computer science degrees in South Africa.

Pesto co-founder Ayush Jaiswal says that there's a severe shortage of tech talent in certain parts of the world and India has a large pool of talent that can alleviate the problem.

Some years ago, the US Bureau of Labor Statistics projected that "by 2020 there will be 1.4 million computer science-related jobs available and only 400,000 computer science graduates with the skills to apply for those jobs", according to a White House **blog**. India has some five million software engineers.

Software engineers in India often earn as little as US\$300 to US\$500 per month, while their counterparts in San Francisco can make \$150 in an hour – and similar amounts may be earned by people working remotely from anywhere in the world.

So after going through the Pesto **programme**, an average graduate who lands a remote US job may enjoy a major rise in income.

Pesto Tech was founded as a tech company by Jaiswal and Linfoot in March 2017. After finding that the coders they employed required upskilling, and that after in-house training their skills had dramatically improved, they launched formal courses in April this year. Now new courses start every month, with students accepted on a rolling basis.

The programme is made affordable for everyone because there is no upfront fee. Instead, once a trained coder earns more than INR150,000 (around US\$2,000) per annum for a full-time remote job, they must pay 17% of their annual income as training fee for three years through an income share agreement. If students earn less than this, the training is free. This way the company wins only if graduates are successful.

“Talent is universal but opportunity is not. However, the world is a small place in 2019. You can be a full-time employee at a company from anywhere. Now is the time to make opportunity universal and accessible to all,” Jaiswal told *University World News*. Pesto’s mission is to turn global software engineering wages into a meritocracy, regardless of where someone is born.

The mentors are usually people who have worked in top organisations like Twitter, Facebook or Uber. They help the graduates to polish their skills and competencies so that they can compete in the world and take up jobs with top US companies while remaining in India.

Jaiswal and Linfoot are both members of US professional technology associations, which makes it possible for them to connect with colleagues there.

According to India’s Ministry of Human Resource Development, the country produces more than 1.5 million graduates in engineering disciplines annually. According to the *Indian Skills Report 2018*, about 48% of engineers are jobless.

In 2016, *India Today* **reported** on a study of 2013 graduates that found up to 97% of graduating engineers wanted jobs in either software or core engineering – but only 3% had suitable skills for jobs in the software or product markets. In major cities, only 18% of software engineers were job-ready.

The training

Jaiswal says Pesto seeks to prepare engineers to work with the best software companies in the world. As many of those companies are in Silicon Valley, Pesto adjusts its programme hours to match Silicon Valley working hours.

“This prepares engineers for the real-world constraints that they might encounter in their

new remote jobs.” As with many professions that require night shifts, software engineers must sometimes work odd hours with team-mates before a product launch to get the job done.

The selection and training process starts with a screening test for software engineering fundamentals, English communication skills and an intense eagerness to learn. Once selected, students are expected to move to Delhi, where they begin the 12-week training programme.

Jaiswal says he keeps telling people they’re lucky to be alive at this point in history. “We’re born in this golden age when innovators are leaders and knowledge is power,” he says. “I tell people to realise the importance of this timing and make each opportunity count. We believe it’s an incredible opportunity and we have truly exciting times ahead of us.”

Jaiswal grew up in a typical Indian middle-class family. He failed to clear the engineering entrance examination for admission into the prestigious Indian Institutes of Technology and felt like his dreams were crushed. “But I was not deterred,” he told *University World News*. “I still managed to get into some pretty good schools and was determined to make the most of it.”

He started his first start-up while studying. But it failed as he was unable to devote sufficient time to it and he decided to quit university. After facing failure with more start-ups, he met Andrew Linfoot. With common thinking, they decided to establish Pesto.

Sharmishtha Sharma, who reviewed Pesto on its Facebook page, says it is a place where every second counts – not just the hours in the office but also the hours before and after that.

“They are working not just to enhance your technical skills but also your personality as a whole. A place one will never regret being a part of,” she writes.

<https://www.universityworldnews.com/post.php?story=20190606080821866>