Apprenticeship
BROCHURE

We strongly believe in
SUCCESS

Kaleidocode Pivot develops high performance young software professionals to join your full time software teams, or to be contracted onto your software projects.

We bridge the gap between university education and commercial skills that contribute tangible software projects.

We are committed to long term innovation in the graduate program space. We believe this is the future of high end software talent for South Africa, it cannot be imported, it must be grown.

Our History
Kaleidocode Pivot Pty Ltd (KCP) in partnership with sister company Kaleidocode Pty Ltd (KC) started the program in 2016.

We invested 2 years of research and development to perfect the program with test candidates. We formally launched a 4 person apprentice class in 2018.
Since then, we have run annual consecutive classes of increasing sizes with the current 2023 class containing 13 apprentices.

We have developed 50 top end software professionals via our program to date.

Structure
of the program

Our apprentice program is based on experience-based learning – i.e. practical learning interspersed with hands on coaching and experience with software professionals.

Apprentices complete more than 90 days of bootcamps covering all skill areas within the software profession (Test, Coding, Automated testing, Professional skills, Business Analysis, Agile, Devops, and Secops).

KCP hires the apprentices on a 12 month fixed contract from January to December. We then coach and supply that apprentice to one of your software teams to be given commercial experience. If you like the apprentice you can hire them permanently at the end of the program, or you can continue to contract them via KCP if you don't have approved Full Time Employee (FTE) positions.

Apprentices join commercial software project teams during the program to start applying their skills. Apprentices conduct a 6 month full software stack application project (a synthetic project that practices all skills) after they have completed bootcamp. Apprentices are coached and assessed throughout the program.

Our offering to you

KCP offers two types of apprenticeships to suit the candidate's abilities and your needs.

Automation/ Developer

Technical Test Analyst

We offer these particular types because we believe these are excellent entry points into the software industry with automation testers able to become strong developers and devops engineers, and test analysts able to become business analysts, project coordinators, and secops engineers.

Our program provides the following services to our clients:

- Extensive marketing of the program.
- Rigorous 6 step recruitment process.
- Thorough HR contracting process.
- Supply of office space, software, internet.
- In depth Induction and onboarding process.
- 3 month probation/performance process.
- Extensive bootcamp structure.
- Ongoing experience-based learning curriculum.
- Regular management and 1:1's.
- Formal performance review process.
- Final assessment and graduation process.

Our Program looks as follows:
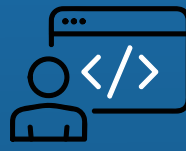
STEP 1

Recruited

STEP 2

Contracted and onboarded

STEP 3

Probation and Bootcamps

STEP 4

Commercial software team experience

STEP 5

Complete a full stack application experience

STEP 6

Assessed and graduated

Recruitment Process

The recruitment process starts in the year preceding the apprenticeship program.

Marketing via social, career fairs and webinars starts in June with final offers going out by November.

The recruitment journey is a rigorous 6-step process that shortlists candidates progressively.

In 2022 we generated more than 700 applications nationwide, selecting the top 2% (13 apprenticeships) by the end of the process.

The approach includes multiple assessments and three interviews by experienced software team members.

Marketing Process

Social media, webinars, career days, working closely with our university partners

Continuous building of our graduate database to enable us to nurture potential annual applications. Marketing drive in May and June.

Application process run from July to August. Intensive recruitment, assessment and interviews from August to November.

Offers conducted in November and early December when the class for the following year is finalised.

Onboarding

Induction and onboarding starts in January.

3 month Probations are conducted in January through March.

Bootcamps

The first 90 - 120 days of the apprenticeship program is focused on bootcamps providing core commercial skills and setting expectations of what we require.

Most of these bootcamps are conducted in parallel with being onboarded onto a software project team allowing the apprentice to apply what they are learning. The bootcamps are normally run in the morning or afternoon only.

High level details of the 9 bootcamps are listed below:

Test Bootcamp
(full time, conducted during induction)

- The purpose of this bootcamp is to introduce candidates to enterprise software, enable them to immediately form part of a team and add value from an early stage.
- Contains Test plans, test cases, test methods and techniques, test logging

ISTQB Bootcamp

- Test SDLC
- Static testing
- Test techniques
- Test management and tool support
- ISTQB Foundation certification conducted in April

Coding Bootcamp
(part time)

- The purpose of this bootcamp is to engender clean coding practices, SOLID design principles, via TDD and problem solving.

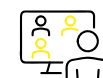### Automated testing Bootcamp
(part time)

- CSS, Browser document object model, selections, web drivers, and scripting

Professional skills Bootcamp
(part time)

- SDLC process, Introduction to agile
- Documentation, Business communication
- Time management

Analysis Bootcamp
(part time)

- Requirements elicitation
- Analysis
- Design - UI mockups and prototypes
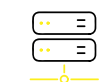- Documentation including users stories

Project Bootcamp
(part time)

- Agile software processes
- Scrum, Ceremonies
- Estimates
- Board management, team structures

SecOps Bootcamp

- HTTP, Burpsuite
- Injection Attacks
- Misconfig Attacks
- Penetration testing

DevOps Bootcamp

- Powershell
- Build servers
- Containerisation and Docker

Making you
Stand out

Software team experience details

Apprentices join enterprise software teams and receive coaching and encouragement from experienced team members. This normally occurs during February/March.

The apprentice spends approximately 70 hours per month working with their assigned team during the course of the bootcamps (Feb through April). After they have completed their bootcamps (May onwards) they will spend 120 hours per month working with their team.

The apprentice is expected to:

- Conduct project work with production software
- Learn how software is built in an agile team
- Learn the client domain
- Learn the project domain
- Learn the client systems and processes
- Apprentices are expected to contribute to the code and the quality of products they work on

Full stack application process details

After the apprentice has completed their bootcamps successfully, they move onto the full stack application stage from June until November.

During this 6 months of the program, the apprentices are required to build a simple 3-tier full stack application.
This synthetic application will fulfil a simple business function focused on a single data table built with modern technologies and software patterns, receiving direction, and coaching from an experienced software developer coach.

The purpose of this is for the apprentice to apply everything they have learned during the bootcamp and the interactions they are having with their client project team.

The full stack application brief covers:

- Design
- Agile board feature listing
- SDLC; requirements gathering and documentation, user stories and UML documentation
- UI; listing, CRUD and search
- API, Database
- Source control
- Automated build
- Unit and integration tests
- Application deployment

The apprentice meets fortnightly with their coach, and they submit all outputs to a private software repository for code or design review. A final assessment is done late in the year on the full project as a key proof of learning.

Reviews and Assessments

- Final probation in March
- Assessments during all bootcamps is undertaken
- Mid year reviews are conducted in July
- Pre-graduation reviews are conducted in September
- Permanent offers go out in October
- Final reviews are completed in November based on full stack applications
- Graduation occurs in December
- Apprentices leave the program late December

Our program results to date

The program has been successful from its first inception, providing permanent employment for a diverse range of candidates from all demographics.

- Almost 100% of graduating apprentices have taken up permanent positions in the software industry with our clients or at KC/P.

- Our apprentices have taken up a variety of roles; Test Analyst, Automated Tester, Junior Developer, Project Co-ordinator, Junior Business Analyst, Junior Devops Engineer.

Why partner with us?

- We focus on purely experience driven learning – practical and usable commercials skills

- We "double-up" your own internal graduate programs, providing alternative and shared innovation

- We are focused on reducing the time to achieve commercial efficacy for apprentices

- We believe the way to improve the skill level of teams is by lifting the junior entry benchmark every year

- We draw off enterprise software experience via the Intenda and Kaleidocode Group to produce the most hands on and effective ways to develop skills

Address:
Durban - Head Office
Unit G1, 35 Intersite Avenue
Umgeni Business Park, Durban, 4001

Contact Details:
info@kcpivot.co.za
(031) 303 2299

Website:
https://www.kcpivot.co.za/