



VEROSINT

A Tester's Life - Startup Edition

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Before We Start

- How are you doing?
- Could I get to know you better?



<https://t.ly/-otub>

My Context

- Question Asker, Bulldog Engineer
- Not a Gatekeeper
- [Verosint](#)
 - SaaS business
 - We detect & prevent online account fraud
- Organization
 - small startup < 20 employees
 - distributed, remote engineering team
 - only testing specialist



<https://t.ly/-otub>



VEROSINT

The New Role

- **Greenfield - OMG!**
 - how many times do you get the chance to do it right from the beginning?
- **Started at the same time as 1st DevOps**



Summary

- Unit tests available for most micro-services. Unit test coverage is captured manually.
- Postman collections are available to test, exercise APIs. The collections are not under source control.
- No automated system testing in place
- No CI/CD pipelines in place
- Datasets for testing databases have not been created yet. Script to create an empty Neo4J database is available.
- No static testing in place (think linters, static code analyzers)
- No defined software development process, no pull request checklists
- No single pane of glass to view test activities, test results

First Steps

- PPP - people, product, process
- Building a strategy
 - details next quarter and then beyond - from tactical to strategic
 - socialize with team
 - and get buy-in
- Roll up sleeves and get cranking
 - 1x1 intro to each team member - remote-first (people)
 - make it a priority to learn the domain (product)
 - building CI/CD pipeline for test automation (product)
 - research tooling for linting back-end/front-end, create configuration, add to pipeline, clean-up code (product)
 - no main branch check-ins, introduce peer reviews, engage (process)
 - yes, manual testing where needed (product)
 - regular check-ins with product manager (product)




People


- 1x1 intro to each team member - remote-first
- Regular check-ins with product manager
- Work with remote UI team - started about the same time
 - contractors
 - different country
 - different culture
- Remember
 - each person has different communication preferences
 - think win-win
 - criticize privately, praise publicly


Product

- Make it a priority to learn the domain
 - account fraud
- Learn the product / technologies
 - graph database, 3rd party vendors for data
- Building CI/CD pipeline for test automation
- Research tooling for scanning the code
 - create configuration, add to pipeline, help cleaning up code
 - golangci-lint, eslint, SonarCloud
- Yes, manual testing where needed



Account



 [evalinesarko@virgilio.it](#) ⓘ




Created: 5/12/2023 11:02:26 AM
Last Seen: 5/17/2023 4:33:33 AM on PrintID:
ab791893-1fd8-4b43-8e46-998f26417d5e 

Signals

Multiple Accounts

Tags

IP	DEVICE	EMAIL
IP Address	Count	Last Seen
 66.232.16.72	21	5/17/2023 4:33:33 AM
 66.232.16.231	21	5/16/2023 4:46:47 PM

Rows per page: 5 rows  1-2 of 2  
7

Process

- No main branch check-ins
 - introduce peer reviews
 - engage in peer reviews
 - teach good practices
- Introduce tooling
 - Atlassian Suite
 - Setup projects
- Standups
 - introduce them
 - show the board - accountability, transparency

Projects / 443 Dev / 443ID

Kanban board

  Release ▾  

Search this board



AC



BL

DM



+6

Only My Issues

Recently Updated

Deployed to production

 Insights

IN PROGRESS

Set a custom tag via an API call

BLOCKED

Entitlement Service v2 (last)

IN REVIEW

datadog monitors and dashboard for

DONE

Snake Investigate adding zerolog to

Working With Product Mgmt

- Know the direction what is coming
- Tendency to focus on features only
 - be the voice for testability, maintainability, scalability, security (in addition to...)
- Challenge assumptions
 - explain pros/cons
 - ask the whys
- Start developing personas
 - buyer
 - users - administrator, fraud specialist, developer
- Think about ideal customer profiles
 - which companies, segments would benefit most from our offering
 - what language do they speak
- Why? This informs testing priorities, focus, goals



Working With DevOps

- Overlap in Goals
 - engineering productivity
- Automation with CI/CD
 - designing the pipeline
 - enabling fast feedback loop
- Setting up / creating environments
 - production, development
- Security
 - manual as well as automated testing
 - 3rd party libraries - think supply chain attacks
- Logging/Monitoring/Alerting
- Load / performance testing
 - preparation, scheduling, execution



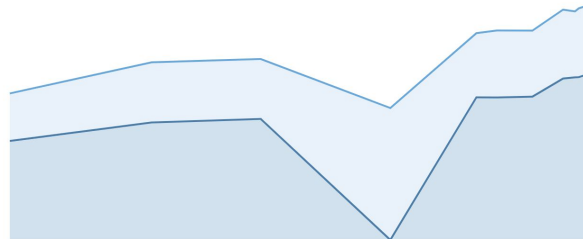
Working With Executives

- No work is possible without their buy-in
 - make it easy for them to understand the whys
 - on a regular basis
 - articulate **value to the business**
 - you are not a gatekeeper
- Communicate often
 - build trust
 - transparency
 - demo your work
 - dashboards, metrics

70.7% Coverage ↗ 3.2%

Findings Coverage Duplications

3,186 Lines to Cover ↗ +1.2k
2,253 Covered Lines ↗ +904



[See full history](#)



Steve Shoaft
CEO & Co-founder



Mark Batchelor
CTO & Co-founder



Travis Favaron
VP of Product



Kristen Komatz
VP of Engineering



Jason Bonds
VP of Sales



Samantha Wenzel
CFO



Working With Interns

- Testing is rarely focus in college programs
- Opportunity for students
 - broaden perspective,
 - work on production code,
 - work in teams
- Opportunity for the team
 - practice mentoring
 - hone technical leadership skills
 - reduce that tech debt
- Works best if both parties win
 - Ask at the beginning: what does a successful internship look like for you?
- Example projects completed
 - E2E testing research & implementation; Roll out RenovateBot to automatically update dependencies; CubeJS integration tests to reduce frontend regressions; Implement CI/CD for library repositories (tagging/versioning)



Logging/Monitoring/Alerting

- DataDog
- Log content
 - right severity
 - right verbosity
 - connecting events flowing through the application
- Frontend logging client side errors
- Application Performance Metrics ([APM](#))
- [Notebooks](#) for capturing content



Datadog APP 3:45 PM

Warn: [dev] controller -

Namespace -- dev

Deployment - dev-ingr

Container ---- controll

Notify:

[Show more](#)

Tags

service:controller

Event Attributes Trace 0 Metrics Processes

ERROR KIND
TypeError

Error

Pretty Raw

TypeError: Cannot read properties of undefined (reading 'length')

components/SignalPrint/Buttons.jsx at line 140:40 View Code

```
135     disablePortal
136     autoSelect
137     size="small"
138     isOptionEqualToValue={equalityCheck}
139     onChange={( event, newInputValue ) => {
140       if ( graphData.nodes.length === undefined ) return;
141       setSearch( newInputValue );
142     }}
143     onChange={( e, newValue, reason ) => onAutocompleteChange( e,
144       newValue, reason ) }
```

Peer Reviews

- Takes many shapes and form
 - does not have to be asynchronous
 - pairing, mobbing, buddy checks, Slack huddles
- Opportunity to teach best practices
 - think junior developers
- Some guidelines help
 - checklists on content, timing, size
- Leverage linters / static analysers to point out the obvious
 - allows you to focus on higher level concerns
- Be responsive & timely
 - ask questions about the code, avoid using “your code”



Documentation

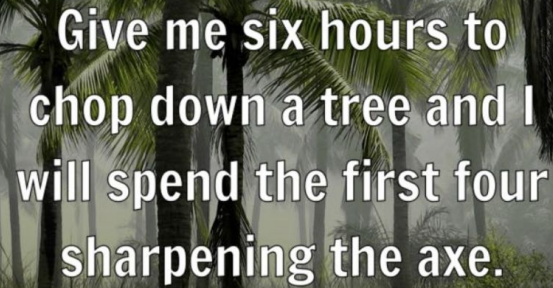
- DocOps?
- Developers stink at it
- Working with documentation contractors
- Process - tech writer on merge requests
- API docs
 - OpenAPI
- Automating publishing
 - API specs
 - Other docs
 - Single source of truth!

```
25 - Validating the API definition located at publicapi.yaml...
26 - Staging your API definition for upload...
27 - Updating your API docs in ReadMe...
28 ✓ Updating your API docs in ReadMe... done! 🤖
29 You've successfully updated an existing OpenAPI file on your ReadMe
30 https://dash.readme.com/project/verosint/v1.0/refs/signalprint
31 To update your OpenAPI definition, run the following:
32 rdme openapi publicapi.yaml --key=<key> --id=6400d38796436f0
34 Cleaning up project directory and file based variables
36 Job succeeded
```

The screenshot shows the Verosint API documentation interface. The top navigation bar includes 'Home', 'Guides', 'Recipes', 'API Reference', and 'Changelog'. A search bar is on the right. The main content area is for the endpoint `/signalprint/events`, which is a POST method. The URL is `https://api.verosint.com/v1/signalprint/events`. The description states: 'Submit application events to detect fraud and analyze in the [SignalPrint explorer](#)'. There are sections for 'Notes on Request Payloads' and 'Notes on Response Format'. The 'Notes on Request Payloads' section explains that the `accountId` property is required for account or user identification, and that the `timestamp` property is optional, defaulting to the current time. The 'Notes on Response Format' section is partially visible at the bottom. On the right side, there are tabs for 'LANGUAGE' (Shell, Node, Ruby, PHP, Python) and 'AUTHENTICATION' (Bearer, token). A 'CURL' section shows a request example: `curl --request POST \ --url https://api.verosint.com/v1/signalprint/ev... --header 'accept: application/json' \ --header 'content-type: application/json'`. A 'Try It!' button is at the bottom right.

Tools of My Trade

- Atlassian stack: [Jira](#), [Confluence](#)
 - integrations (!) - Slack, Gitlab, Email, DataDog
- Gitlab: [CI/CD](#), [repository analytics](#), [SAST](#)
 - Also: [Renovatebot](#) - 3rd party component updates
- Static testing: [golangci-lint](#), [eslint](#), [Sonar Cloud](#), [Prettier](#)
- Commit hooks: [husky](#)
- Unit / integration testing: [go testing library](#), [Jest](#), [React Testing Library](#)
- API / integration testing: [Postman](#) & [Newman](#), [Vacuum](#)
- Load testing: [k6](#), [vegeta](#), [f1](#)
- End-to-end testing: [Playwright](#)
- Security testing: [Zed Attack Proxy](#)
- Documentation: [Readme](#) (& [rdme](#) client), [Lucid](#), [Miro](#)
- IDE: [Visual Studio Code](#) (GitHub [Copilot](#), [REST Client](#))
- Data Quality: Google Sheets [functions](#), SQL



Give me six hours to chop down a tree and I will spend the first four sharpening the axe.

Abraham Lincoln

BrainyQuote

To Recap

Why should work at a startup?

- Greenfield
- Lead & stay hands-on
- Wear multiple hats
- No silos
- Experience impact first hand
- No red tape
- Fewer meetings
- Want focused but varied work
- Enjoy being the glue engineer, enjoy greasing the wheel

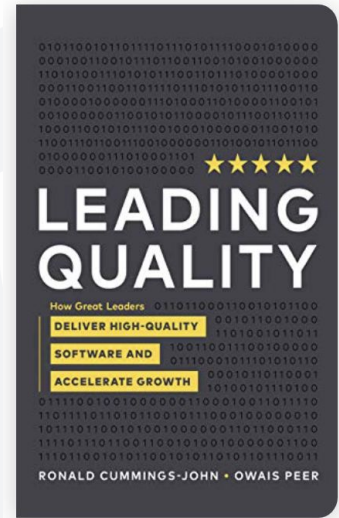
Why should you hire a testing specialist?

- Instills best practices from the get go
- Helps team to scale
- Increased engineering **productivity** - less rework, more feature work
- Start early: you need a **specialist**
- You are not the one finding the bugs!



Books, Podcasts, Newsletters

- Books
 - [Leading Quality](#): How Great Leaders Deliver High-Quality Software and Accelerate Growth
 - [Holistic Testing: Weave Quality into your Product](#)
- Podcasts (full [list](#))
 - [AB Testing](#)
 - [Testing Peers](#)
 - [Dev Interrupted](#)
 - [Software at Scale](#)
 - [Maintainable](#)
- [The Pragmatic Engineer](#) newsletter





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My slides are available for you at:

<https://bertold.kolics.net/pages/>



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