

Gerard van Schie

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Profile summary

I am a fast-learning software engineer with a broad range of knowledge, specialized during my master's degree in algorithms and code analysis. During my work I have developed the necessary skills to practically and gradually apply a range of ideas to solve business wide problems. I am enthusiastic about programming and solving problems and like to collaborate in a flexible agile team. My goal is to work in a position where I am enabled to learn from others and have opportunity to create a difference.

Education

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| • Master's Computer Science – <i>Utrecht University</i> | 2021 – 2023 |
| • Bachelor's Computer Science – <i>Utrecht University</i> | 2018 – 2021 |
| • VWO NG/NT diploma – <i>MBO Rijnland</i> | 2017 – 2018 |
| • Partial VWO diploma – <i>Driestar College</i> | 2012 – 2017 |

Experience

Medior full stack developer | First year junior

NEXUS Nederland – *Vianen*

Dec 2023 – Now

- Programmed and extended entire Angular Typescript portlets under deadlines for mental health care systems which were critical to providing healthcare
- Tinkered on an initial Oracle Cloud hosting setup of a newly migrated product using Kubernetes and ArgoCD to deploy with Terraform
- Created OpenAPI definitions and queried data with Oracle SQL in Java
- Added a Jenkins CI/CD pipeline for Docker builds and published the artifacts to Artifactory
- Maintained existing software and built additional features with careful considerations about backward compatibility
- Improved performance of a new agenda implementation by a factor of 100 while keeping complexity low and removing caching
- Replaced custom implementations by native, removed code and unit tests which did not add value, combined functionality to reduce development time
- Changed entire Java REST-service implementations to support a wider group of end users
- Advised on tool choice for front-end testing automation, Playwright, within the company and created an initial mono-repository setup for development and testers to use and extend
- Substituted for PO during times of absence, managed bug reports and escalations, supported other teams with releases at critical moments of pressure, and gave valuable input during meetings
- Reduced time it took to release new software by 3 fold and reduced chances for human errors
- Eliminated common bugs in existing app definition using custom validation techniques

Programmer | During study

MySep Pte Ltd – *Arnhem*

May 2022 – Dec 2022

- Collaborated with people with different culture and timezones
- Converted legacy VBA code to C# and wrote a custom code converting tool in Haskell to perform this task in under an hour instead of days
- Identified the need for a centralized and robust testing framework to create flexibility in the new C# code base
- Communicated issues of current testing strategy and developed a custom C# code generator. Which generated complete source code for a testing framework and integrated seamlessly into the Visual Studio IDE
- Optimized time consuming algorithm to make it 200 times faster and verified correctness extensively
- Proposed numerous low effort improvements to increase code clarity and reduce bugs found in existing software

R&D Assistant | During study

Uniface BV – *Amsterdam*

Jun 2021 – Aug 2021

- Extended GitLab CI/CD pipeline to test application on Linux platform with shell scripts
- Improve overview of test results by generating JUnit reports and integrated them into the GitLab pipeline
- Adapted existing build scripts to improve readability and flexibility

R&D Assistant | During study

Uniface BV – Amsterdam

Jun 2020 – Oct 2020

- Finalized a Python script to move source code from IBM Synergy to Git and included numerous verifications
- Fixed broken automated tests in Ranorex for the Uniface IDE
- Reduced time of GUI tests. For example, a 55 minute test to under 5 minutes, without losing meaningful test coverage
- Identified improvements with GUI testing developer workflow, proposed a solution within remaining contract duration and successfully implemented the new architecture using the 'architecture by code' principle

Technical skills

- Core skills: Java, C#, Angular, Python, JavaScript/TypeScript, Haskell, Playwright, Docker, GitLab, GitHub, CI/CD
- Scripting: Windows PowerShell, Batch Script, Bash, Regex, JQuery, Perl, CMake, Make
- QA: Code performance analysis, Code coverage analysis, Static program analysis, Linting, Mutation testing, Unit testing, Property testing, Agent-based testing
- OS: Windows, WSL, Ubuntu, SUSE
- Other: Oracle SQL, Jenkins, Ranorex, Playwright, Qt, VMware vSphere, Jira, Confluence, Bitbucket

Projects

Intelligent agent game testing | Master's Thesis – Utrecht University

Jan 2023 – Oct 2023

- Adapted part of the game C++ source code
- Changed and expanded the API implemented in Python
- Changed socket communication entirely to binary to speed up connection
- Interpreted information in Object oriented model in Java
- Used the iv4xr-framework in Java to develop an agent to automatically traverse the levels
- Proposed and implemented improvements to the framework for layered 2D navigation to handle a wider range of maps
- Provided the project with scripts to keep installation, building, and running simple

Shape retrieval system – Utrecht University

Sep 2022 – Nov 2022

- Pre-processed 3D shapes & Collected properties of the shapes
- Created a Qt GUI for the system and visualize the shapes
- Wrote a query algorithm to improve the system
- Evaluated effectiveness of the query algorithm and wrote algorithm to automatically improve parameter weights to find similar shapes
- Visualized multidimensional data in 2D
- Presented and reported on the performance of the system

Multi-camera surveillance | Bachelor's project – Utrecht University

Feb 2021 – Jun 2021

- Managed a team of 11 people as Scrum Master half the project timeline
- Identified changing team requirements during development and resolved them
- Assisted with architecture design process and system deployment
- Created and maintained Docker swarm files for the micro-service application
- Created and maintained CI/CD scripts in GitHub and GitLab to perform automated builds
- Extended Python linter functionality to further comply with PEP standards and documentation requirements
- Made contributions in all the logic of 2 separate components
- Helped team members throughout the project to improve progress

Hobbies & Interests

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| <ul style="list-style-type: none">• Sports activities• Meeting people• Hobby projects in Flutter/Go/TypeScript/LuaScript | <ul style="list-style-type: none">• Playing piano• Reading |
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Languages

- Dutch
- English