Zach Toogood

@: zrtoogood@gmail.com | LI: linkedin.com/in/zrtoogood | GH: github.com/zach2good | MOB: On Request

Career History

Senior Software Engineer (Contract) - TopHatch, London

November 2023 - Present

Working on the Concepts app as part of the Engine team. Infinite, flexible sketching for every idea (https://concepts.app/en/).

• Initial development and maintenance of the Shape Recognition and snapping feature.

Technologies used: C++ / Git / GitHub / Windows / Android

Senior Software Engineer - BUX Financial Services, London

June 2023 - November 2023

Working as part of the Risk team. Supporting traders, developers, and analysts by developing and maintaining internal risk management software.

- Modernised development workflows and brought monthly crash rate to zero by refactoring all internal software to build with maximum warning flags, upgrading from MSVC17 to MSVC2022, Qt5 to Qt6, qmake to CMake, Bloomberg API 3.8 to 3.20, building in clang-format and clang-tidy checks, extracting common code out into shared support libraries - providing lockless usage, simplifying database access patterns.
- Designing and implementing new trader support tools, including up-to-date pricing and metrics displays and FIX messaging with counterparties.

Technologies used: C++ / Qt / Python / SQL / Git / Bitbucket / Windows

Software Engineer - Splunk, London

November 2022 - April 2023

Working as part of the Search and Indexing team. Providing support and debugging for complex enterprise customer deployments.

Technologies used: C++ / Python / Git / GitLab / Atlassian Stack / Windows / OSX / Linux

Senior Software Engineer - Mapbox, Helsinki

April 2021 - October 2022

Working as part of the Core SDK team. Supporting internal and external consumers of Mapbox's native SDKs. Working in the Offline and Caching subteam.

 Kicking off and leading an effort to expand our internal TileStore service to provide on-disk and in-memory caching for arbitrary data types at the request of customers, with configurable scoring for entry eviction and quota management - allowing consumers to choose tradeoffs between latency and memory usage.

Technologies used: C++ / Python / Git / GitHub / CMake / OSX

Senior Software Engineer - F-Secure, Helsinki

September 2020 - March 2021

Working as part of the Product Core team, inside the Security, Research, & Technologies unit. Developing and maintaining cross-platform building blocks for efficient internal and external product creation.

Technologies used: C++ / Git / Atlassian Stack / Visual Studio / Windows

Software Engineer - Yousician, Helsinki

March 2018 - August 2020

Audio engine development. Working as part of the Core Services and R&D teams.

 Backporting legacy tuning and audio analysis logic from C# into C++ to allow compilation and deployment to the web with Emscripten (yousician.com/guitartuna).

Technologies used: C++ / Emscripten / Git / GitHub / Atlassian Stack / CMake / CLion / OSX

Software Engineer, Morningstar, London

March 2017 - February 2018

Working as part of the Real-Time Data branch of Morningstar; collecting real-time data from more than 260 sources around the world, covering a wide range of equity exchanges and indexes, as well as foreign exchange and Treasury markets.

Technologies used: C++ / C# / Python / Git / BitBucket / Jenkins / SonarQube / Windows

Software Engineer - Pebble Beach Systems, Weybridge

March 2016 - March 2017

Development of market-leading broadcast automation software within a small agile development team, employing Kanban for increased reactivity.

Technologies used: C++ / Qt / SQL / Git / JIRA / Stash / Bamboo / Windows

Open Source Contributions

Various Final Fantasy XI Private MMO Server Emulators

April 2019 - Present

Feature development, performance analysis and tuning, reverse engineering, gameplay scripting, packet capture and analysis, exploit discovery and resolution, build tooling, repo and CI management, community support, development live streaming, and technical writing.

Repo: github.com/LandSandBoat/server

Technologies used: C++ / Lua / Python / SQL / GitHub / CMake / Windows / Linux

Education

2011-2014 University of Kent BEng (Hons) Computer Systems Engineering (IET accredited)

References available upon request