

Alexander Rossa

Software Developer

Contact: alexanderrossa@gmail.com

Tel: +447491 935 989

Portfolio: www.alexan.red

Experience

Principal Software Developer @ Zynstra, NCR

MAR 2022 - Present // Bath, UK

Senior Software Developer @ Zynstra, NCR

MAR 2020 - MAR 2022 // Bath, UK

- **Led a team of 5 developers** working in the domains of high availability, VM management, cluster management and containerisation
- Included taking up new responsibilities such as **people and project management**, architectural design and release planning
- Our team has **consistently delivered highly complicated features** - evidenced by numerous R&D awards and successful releases
- Helped **reduce the knowledge silos across the company** by proposing and leading the adoption of tools such as [StackOverflow for Teams](#)
- Supported delivery team by providing thorough **documentation** and by helping with **analysing and resolving bugs** found in production
- Oversaw release of new major features, including **VM cloning**, which enabled Windows updates of customer VMs with no loss of service

Software Developer @ Zynstra

OCT 2018 - MAR 2020 // Bath, UK

- Fully **reworked the existing high availability solution** - reimplemented in Python, with 95% unittest coverage and robust integration testing
- Part of a team that implemented a new topology - notably involved support for **live migration of VMs, enabling zero downtime**
- Worked on improving internal company processes, such as by **creating bots that managed our GitLab instance via API**
- Led the work on Image Library - a new feature for **distributing VM images across stores** in an automated and scalable way

Google Summer of Code Intern @ University of Antwerp

MAY 2018 - AUG 2018 // Antwerp, BE (remote)

- Reworked an existing JS tool for context-free generation called [seed](#) into an **npm** module
- **Built a Twitter bot** for [calming heated discussions on Twitter](#) using a machine learning backend in **Python** and a **NodeJS** text generator, deployed to Heroku
- Created a **custom built dataset** of labelled tweets for the machine learning training

Research Intern @ Digital Centre, University of Hull

MAY 2017 - AUG 2017 // Hull, UK

- Worked on **machine learning code generation** from JSON config files and domain-specific language scripts using [DEFine](#)
- Created an [ANTLR4 grammar for lexing and parsing the DSL](#) into working Keras scripts

Skills

Programming Languages

Python, JavaScript, Go, C#, Bash, Java, HTML & CSS, SQL and NoSQL

Libraries & Frameworks

Pandas, Flask, Django, TensorFlow, Keras, NodeJS, React, REST, Protobuf

Tools & Platforms

Linux, Xen, Docker, Kubernetes, Git, Jenkins, DRBD, ZFS

Education

University of Hull

2015 - 2018 // Hull, UK

Graduated with **First-Class Honours // 84%**
Dissertation: [Hyperparameter Optimization for Neural Networks](#)

Research & Publication

Journal of Language Aggression and Conflict

[Online hatred of women in the Incels.me Forum](#)

Created, trained and optimised machine learning models - multichannel CNN models reached **accuracy of 95%**

Awards

R&D Award at NCR - 2022

Meritorious // Virtual Machine Pinning

Enabled **up to 30% more VMs** running on the same hardware

R&D Award at NCR - 2021

Distinguished // Image Library

Tool for distributing VM images efficiently. Achieved **size reductions of up to 90%**

G. B. Cook Prize - 2017

Award for attaining the highest grade average of the whole class at University