

Rukaya Johaadien

A python software engineer with experience working with data and in the biological sciences

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Skills summary

Technical: Several years of experience working with OO programming languages, including Python, Ruby, Java, PHP, C# as well as relational databases such as MariaDB, Postgres/PostGIS and some non-relational MongoDB experience. I have some experience with Node.js, VueJS and React. I write W3C standards compliant HTML, SASS & LESS. Deployment and devops experience: Kubernetes, Docker, Terraform, AWS.

User interface design: Experience and formal training in UX designing and data visualisation.

Communication and language: Native English speaker, currently learning Norwegian. I also have many years of experience in conveying & presenting technical ideas to users from non-technical backgrounds.

Teamwork and organisational: Experience working in Agile/SCRUM teams as well as working independently or with one or two other developers. In the past, I have managed & organised projects, liaised with contractors, scientists & external stakeholders, and worked closely with other developers in different organisations and countries on projects using GitHub.

Experience

February 2019 – Present: **Head engineer** for GBIF Norway, University of Oslo

I currently work at the Norwegian Global Biodiversity Information Facility Node. My initial tasks were consolidating and overhauling the deployment and release process of several pre-existing web and data processing applications using Docker.

I also wrote unit and integration tests where they were missing, and built an API (written in Python using the Django REST framework) which provides access to Norwegian biodiversity data records published through the GBIF portal, and stores data history and data annotations. I am currently writing a React front end for this.

My other responsibilities include: teaching and mentoring data scientists in Norway and in our various international projects, such as BioDATA, and the GBIF Capacity Enhancement Support Programme; and building data cleaning, transformation and publication pipelines, both for Norwegian institutions and in other countries. I am involved with several international working groups to create standards and best practices for sharing and structuring data in the field of bioinformatics.

March 2018 – February 2019: **Software engineer** at Prodigy Finance, Cape Town, South Africa

I worked with a decentralised international team of software engineers to build a borderless lending finance platform opening up world class postgraduate education for students in developing countries. I was part of the Investor team, tackling problems such as calculating default rates, profiling and sorting student loans into various bonds for funding allocation and building an investor portal.

I had many learning opportunities and new experiences, notably in:

- Agile development using the SCRUM methodology, and learning how to coordinate with many teams of other developers
 - Ruby on Rails, Python, Javascript, Docker, AWS, continuous deployment
 - Test driven development, pair programming, and coding katas
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August 2014 – March 2018: **Systems analyst / developer** at SANBI, Cape Town, South Africa

My main responsibilities involved developing user interfaces, databases and web applications for scientists. I also wrote technical reports and provided data analysis, processing and cleaning assistance to scientists, as well as mentoring junior members of staff.

I designed and built a web application for the capture, QC and storage of Environmental Impact Assessment data using Python, PostGIS and leaflet as the front end mapping library. The most challenging aspect of this project was unifying the various stakeholders (including taxonomic specialists, EIA practitioners and fieldwork assistants) needs and giving the project an achievable set of goals. Some of my other projects include:

- Designing and developing a database and web interface for the South African Oceanographic Biodiversity project, Seakeys. Application cross-checks against the World Register of Marine Species API.
- Designing and developing a GIS web application to aid geolocating, aiming to reduce errors and make quality checking easier

August 2010 – August 2014: **Developer** at SANBI, Cape Town, South Africa

I planned and executed the redevelopment of the public facing website. This involved assessing the old website, capturing requirements and producing prototype designs and a proposal, which I then got approved by the management committee. Scope creep was a major issue, I handled it by creating a request queuing & prioritisation system. The new website was built in JQuery and PHP using the Drupal framework. My post-launch plan involved periodic updates, regular assessments, scheduled feedback sessions. Ongoing regular site maintenance included monitoring user metrics with Google Analytics.

August 2008 – August 2010: **Developer** at Wedge Digital, London, U.K. N1 7UX

Redesigned & coded the user interface of the company's main product – a loan management system with a complex interface for clients and administrators. I also captured requirements from clients, prioritised various features based on time cost and importance to the product and advised on project planning.

2006 – 2007: **Junior Developer** at Xbridge, London, U.K. EC2A 1AE

Responsibilities ranged from design and creation of digital content and print content to website maintenance and collaborating with various teams to generate various advertising/marketing ideas.

Education

2013 – 2014: **MSc in Conservation Biology** at the University of Cape Town, South Africa

A highly respected course which provides scientific knowledge and tools for practical problems.

2004 – 2008: **First class honours BSc degree** in Multimedia Technology & Design, London, UB8 3PH

A unique multidisciplinary course bringing together computer technology and creative design skills.

2000 – 2004: **A-Levels** at Bingley Grammar School Bingley, U.K., BD16 2RS

A - B grades, GCSEs: 9 A* - B grades

Interests

Reading is one of my favourite pastimes; I like both fiction and nonfiction, but have a preference for the classics. Much of the rest of my free time is spent painting watercolours, playing video games, travelling, hiking and camping. Since moving to Norway, I am also enjoying learning both Norwegian and skiing.

References

Available on request.