Patrick Meier

Scientific Assistant

October 9th, 1991

https://patrickmeier.info

patrick.meier@teleport.ch

Profile

I am a highly motivated graduate in life science technologies with strong programming skills. Learning new skills suits me very well and I can put them into practice quickly. I have good communications skills and I am a great team player who focuses on the essentials. I want to use my wide practical skills and experience in computional biology and data science to find new solutions for the health challenges of tomorrow.

Skill Overview

Python

Biopython

Java

C#

MeanStack

Vue.js

SQL & NoSQL

Docker

Scale from 0 (Fundamental Awareness) to 5 (Expert)

Education

2017 - 2020	Bachelor of Science in Life Sciences | Medical IT, Muttenz *University of Applied Sciences and Arts* *Northwestern Switzerland*	Studies

Course specialisation:
Bioinformatics and medical informatics
Telemedical systems
Imaging techniques and image processing
Intelligent systems
Statistics and data analysis
Software systems
Visual analytics

2013 - 2017	University entrance qualification, Muttenz At GIBM	Matura

Scientific Experience

2020 - Now	Scientific Assistant, Muttenz *University of Applied Sciences and Arts* *Northwestern Switzerland*	Software Developer

aiHealthLab
Developing software applications for the analysis of health data. Supporting the research team with bioinformatic pipelines and high-performance computing.

Thesis — Personalized medial platform
Implementation of a personalized medical web platform for the diagnosis of patients with a clinical decision support system. Full-stack solution using the MEAN stack with the help of machine learning for hypothesis support and later classification of patients.

Project — Augmented reality tracking application
Microsoft Hololens application written in C# using Unity and Vuforia for drug package recognition, which can present the associated ingredients and their corresponding molecules in 3D. Mobile solution for Android as well as iOS to enable a playful interaction of pharmaceutical products.

Project — Medical image application
Development of a hospital architecture for the analysis of image data from medical diagnostic images. Full-stack solution with the ability to filter results according to specific criteria or by using tags. The app was built using TypeScript, Vue.js, Node, Docker & PACS Server.

Languages

German	Native
English	Upper intermediate
Spanish	Intermediate

Hobbies

Climbing, camping, hiking, playing guitar

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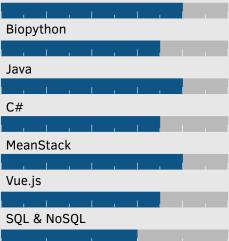https://patrickmeier.info

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Programming languages

Python	Very good knowledge
Java	Very good knowledge
TypeScript	Very good knowledge
R	Good knowledge
C /C++ /C#	Good knowledge
SQL / NoQSL	Good knowledge

Bioinformatics

General
Very good knowledge in protein alignment, nuecleotide annotation and searching for sequence motifs using Biopython.

Tools
Very good knowledge of BLOSUM, BLAST, PSSM & HMM

Data science

General
Very good knowledge in data preprocessing & data management

Machine learning
Very good knowledge in ANN, CNN, RNN, Clustering & Random Forest using Scikit Learn, Tensorflow & Keras

Data visualisation
Very good knowledge in Matplotlib, Seaborn and Pyplot

Image processing

General
Very good knowledge in medical image-creation & image-processing

Image-analysis & visualisation
Very good knowledge in segmentation, registration, classification, feature-detection & rendering using Matlab & VTK

Medical IT

Standards
Good knowledge in Dicom, HL7 & electronic health records

Distributed systems
Good knowledge in JEE, REST, SOAP & security in the medical field

Web development

General
Very good knowledge in NPM & Maven

Backend
Good knowledge in Node, Express, MySQL, MongoDB & Postgres

Frontend
Very good knowledge in Angular, Vue.js, HTML & CSS

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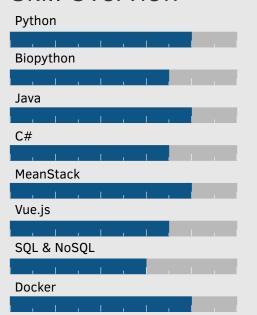
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Technical Experience

2016 - 2017	Kilchenmann AG, Arlesheim Multimedia electrician Installation and maintenance of professional telecommunication and multimedia systems	Multimedia
2012 - 2014	Edi Blatter AG, Basel Multimedia electrician Installation, service and sale of high-class Bang & Olufsen multimedia systems	Multimedia
2011 - 2012	Glanzmann Multimedia AG, Allschwil Multimedia electrician Installation, service and sale of consumer electronics	Multimedia

Other Experience

2017	Civilwork - Cantonal hospital, Liestal Data maintenance and archiving work Preparation of medical data for migration into a new database	Healthcare
2015 - 2016	Civilwork - Day care center, Basel Assistance and planning Accompanying kindergarden age children	Social
2015	Travel experience Central & South America	Travel
2013 - 2014	Civilwork - Youth center "Badhuesli", Basel Facility management and supporting adolescents Providing homework assistance and being a contact person	Social