



# MONIKA PUCHALSKA

PHYSICIST / JUNIOR JAVA DEVELOPER

## ◦ DETAILS ◦

Tanbruckgasse 25/2, Vienna, 1120,  
Austria  
+436607393299  
[puchalska1977@gmail.com](mailto:puchalska1977@gmail.com)

Date / Place of birth  
12.02.1977  
Myszkow, Poland

## ◦ LINKS ◦

Linkedin  
Website

## ◦ SKILLS ◦

Analytical Thinking

Ability to Work in a Team

Fast Learner

Data analysis

Computer Skills

Programming

Database/SQL

UI/UX

## ◦ HOBBIES ◦

embroidering, cinema, sudoku,  
biking

## ◦ LANGUAGES ◦

Polish

English

German

## 👤 PROFILE

I am a radiation physicist with a passion for data analysis and a solid foundation in mathematical modelling and analytical thinking. Recently, I completed a Java course that has expanded my skills in software development. I am now ready to transition to the IT field as a Junior Java Developer and further deepen my knowledge in software development. I aim to bring my scientific approach and analytical thinking skills to the development of innovative software solutions, and I continuously strive for personal growth and development.

## 📁 EMPLOYMENT HISTORY

### University Assistant at TU Wien, Vienna, Austria

January 2015 — December 2020

- Strategically planned and executed research initiatives, resulting in 99% on-time completion of project milestones.
- Conducted comprehensive data analyses, resulting in trends identification to optimize the use of passive detectors for proton dosimetry.
- Utilized advanced Monte Carlo simulations to significantly enhance understanding of neutron dose distribution in radiotherapy.
- Presented lectures at national and international conferences, resulting in increased visibility for the university.

### Medical Physicist at Maria Skłodowska-Curie National Institute of Oncology, Warsaw, Poland

September 2014 — December 2014

- Ensured precise radiation delivery through precise dosimetric verifications of IMRT/VMAT radiotherapy treatment plans.
- Implemented rigorous quality assurance protocols for medical linac accelerators, guaranteeing treatment accuracy and patient safety.

### Postdoc/Researcher at Chalmers University of Technology, Gothenburg, Sweden

April 2009 — August 2014

- Enhanced accuracy in simulations for the ion therapy through comprehensive benchmarking of MC transport codes.
- Expanded knowledge of dose distribution in the human body by developing a voxel-model for radiation transport simulations.
- Published peer-reviewed journal articles detailing findings from research projects related to radiation exposure, contributing to the advancement of scientific knowledge in the field.

### Assistant Professor at Institute of Nuclear Physics PAN, Cracow, Poland

September 2008 — August 2011

- Improved dosimetry for space missions by expanding knowledge of the response of thermoluminescent detectors to cosmic radiation.
- Collaborated with professionals to collect and analyze data, contributing to a deeper understanding of dose distribution at the International Space Station (ISS).

- Developed GlowFit software for advanced data analysis and visualization, providing a valuable tool for the decomposition process in the field of thermoluminescence ([link](#)).
- Created a numerical model of a human torso phantom for precise dose distribution calculations, crucial for ensuring astronaut safety aboard the ISS.
- Elevated institute visibility by delivering lectures at national and international conferences, gaining recognition and acquiring collaborations with leading experts in the field.



## EDUCATION

### **Java Software Developer, WIFI Wien, Vienna, Austria**

September 2023 — March 2024

- Developed a RESTful desktop application ([link](#))
- Finished with very good results

### **Full-Stack Engineer, codecademy (online)**

May 2023 - now

### **ÖSD German certificates, Vienna, Austria**

March 2021 — October 2022

Levels A2 - C1, in various institutions, i.a. ibis acam.

### **PhD in Physics, International PhD Studies at IFJ PAN, Cracow, Poland**

October 2003 — July 2008

### **MSc in Technical Physics, AGH University of Krakow, Cracow, Poland**

October 1996 — June 2001