

# Paul Setinek

✉ paul.setinek@gmail.com

🌐 <https://www.linkedin.com/in/paul-setinek/>

🌐 <https://github.com/psetinek>

☎ +43 664 4210005

## EDUCATION

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- **Imperial College London** London, United Kingdom  
*Master of Science in Applied Computational Science and Engineering* Oct 2022 - Oct 2023
  - **GPA:** distinction
  - **Relevant Coursework:** Advanced Programming, Computational Mathematics, Data Science & Machine Learning, Deep Learning, Modelling and Numerical Methods, Inversion and Optimisation, Patterns in Parallel Programming
- **Vienna University of Technology** Vienna, Austria  
*Bachelor of Science in Mechanical Engineering - Management* Oct 2017 - Jun 2022
  - **GPA:** 1.9 (1-5, with 1 being best)
  - **Relevant Coursework:** Mathematics, Mechanics, Control Engineering, Fluid Mechanics, Statistics, Management, Finance and Optimisation  
*Extension Program Bachelor "Digital Skills"* Mar 2021 - May 2022
  - **GPA:** 1.4 (1-5, with 1 being best)
  - **Relevant Coursework:** Foundations of Information Systems, Data Analysis and Visualisation, Security and Privacy

## PROFESSIONAL EXPERIENCE

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- **Carl Zeiss Microscopy GmbH** Munich, Germany  
*Internship - Microscopy Automation and Computer Vision* Mar 2024 - Present
  - Led microscopy automation projects for clients in the automotive and medical industries.
  - Collaborated closely with clients to gather requirements, negotiate project scope, and ensure solutions alignment.
  - Designed and implemented a large-scale project focused on automated welding measurements, involving distributed image acquisition, analysis, and visualisation across multiple machines. Created the database schema and implemented a SQL database for efficient data management and retrieval.
- **Vienna University of Technology** Vienna, Austria  
*Teaching Assistant - Continuous Simulation* Feb 2021 - Nov 2022
  - Organised and held programming exercises for up to 200 students and supervised groups with individual projects.
  - Coursework: Modelling and Simulation, Numeric Algorithms, solving ODEs and discrete difference equations using Matlab/Simulink and Python.
- **ALRAG** Vienna, Austria  
*Internship - Asset Management* Aug 2020 - Nov 2020
  - Developed a web scraping tool using Python and BeautifulSoup to automatically extract data from various websites, identifying potential properties for the acquisitions team.
  - Created and maintained an executable that streamlined part of the acquisition process from multiple hours to around a minute, increasing efficiency by over 95%.

## RELEVANT PROJECTS

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- **Independent Research Project** London, United Kingdom  
*"Application of Neural Radiance Fields (NeRFs) in visual based subsea maintenance"* May 2023 - Oct 2023
  - Collaboration between Imperial College London & Aker BP.
  - Implemented a NeRF model tailored to the subsea domain.
  - Yielded better visual performance metrics and 68% decrease in training time compared to state-of-the-art subsea model.
  - [https://github.com/AkerBP-DataOps/seathru\\_nerf](https://github.com/AkerBP-DataOps/seathru_nerf)
- **Continuous Simulation Publication** Vienna, Austria  
*ARGESIM Benchmark C7: Constrained Pendulum* Jun 2020 - Nov 2020
  - Collaborated with colleagues to implement an educational benchmark simulation of a constrained pendulum in Matlab and on the E-Learning Server of the Technical University of Vienna.
  - Grujic, M., Haupt, J., Hossain, Y., Klimon, L., Setinek, P., & Breiteneker, F. (2021). ARGESIM Benchmark C7: Solution in MATLAB Environment and Integration into TU Vienna's MMT E-Learning Environment. Simulation Notes Europe SNE, 31(4), 239-254. <https://doi.org/10.11128/sne.31.bne07.10589>

## SKILLS SUMMARY

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- **Programming Languages:** Python (relevant libraries: NumPy, SciPy, pandas, matplotlib, seaborn, BeautifulSoup, devito, scikit-learn, xgboost, PyTorch, langchain, nerfstudio), Matlab, C++, SQL, bash scripting
- **Tools:** Git, VS Code, Simulink
- **Languages:** German (native), English (fluent) and French (intermediate)
- **Certifications:** TOEFL (113/120), Hugging Face "Deep Reinforcement Learning Course", Coursera "Hands-on machine learning with AWS and NVIDIA", SAP Certificate, "Real Estate Economics and Finance" Program at LSE