Nikola Stoyanov

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Work Experience

- **Aridhia Informatics** **July 2020 - to date**
  Backend Developer *Remote, United Kingdom*
  - Developed Aridhia's data sharing and delivery platform for scientific computing in the health data science sector.
  - Created the platform's external RESTful and GraphQL APIs.
  - Designed a data access request component using a business process model and notation system.
  - Technologies: Ruby, PostgreSQL, GraphQL, Kubernetes.
- **Element Materials Technology** **September 2015 - June 2020**
  Certification Engineer (FTE 0.2) *Warrington, United Kingdom*
  - Developed Python and Excel tools for statistical modelling of thermal test data.
  - Business development with clients in China and Southeast Asia.
  - Developed new technical services for material property extraction using Neural ODEs with Julia and Flux.jl.
  - Technologies: Julia, Python, SciPy, VBA.

Education

- **The University of Manchester** **September 2016 - to date (Exam pending)**
  PhD Materials for Demanding Environments *Manchester, United Kingdom*
  - Developed a Neural ODE inverse heat transfer method to predict material properties using Julia and Flux.jl.
  - Sponsors: Element Materials Technology.
- **The University of Manchester** **September 2011 - June 2016**
  M.Eng. Civil Engineering with Industrial Experience *Manchester, United Kingdom*

Skills

Programming: Python, Go, Ruby, C++, Fortran, Matlab, Julia, shell scripting, SQL, LaTeX
Technologies: Kubernetes, PostgreSQL, DynamoDB, RabbitMQ, Terraform, GraphQL
Scientific/Technical Computing: SciPy, Seaborn, ABAQUS, VTK, ParaView, DifferentialEquations.jl
Machine Learning: Scikit-learn, TensorFlow, Flux.jl
DevOps: Docker, CI/CD, AWS ECS, Azure AKS
Cloud: GCP, AWS, Azure
Version Control: Git

Personal & Professional Activities

- **Image recognition**
  https://github.com/NikStoyanov/image-recognition
  - Tensorflow image recognition API in Go hosted on AWS ECR with a React frontend.
- **pyCM**
  https://doi.org/10.1016/j.softx.2020.100458
  - Contributed to the development of the algorithms for numerical integration and postprocessing of results from residual stress measurements using Python, SciPy and VTK.

Interests

- Long-distance running.
- Guitar enthusiast.