Daniel Simons

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Profile

Software Engineer at Kx Systems. Graduated from the University of Sussex with a BSc in Computer Science, achieving one of the top results in my cohort in modules covering machine learning, data structures & algorithms, mathematics, compilers and computer architecture, and further programming.

Education

Computer Science BSc, University of Sussex   **2018 – 2021**

- Upper Second Class Degree
- Key modules:
    - Year 1: Data Structures & Algorithms (87%), Further Programming (74%), Mathematical Concepts (75%)
    - Year 2: Fundamentals of Machine Learning (81%), Software Engineering (75%), Program Analysis (72%), Compilers & Computer Architecture (71%), Databases (69%), Computer Networks (71%)
    - Year 3: Introduction to Computer Security (70%), Final Year Project (68%)

A-Levels, University College School, London   **2015 – 2017**

- Mathematics (A), Geography (A), Politics (C)

GCSEs, North Bridge House Senior School, London   **2010 – 2015**

Mathematics (A*), Further Additional Science (A*), French (A*), English Language (A), Core Science (A), Additional Science (A), Geography (A), English Literature (B)

Skills

Web Development:

- Python (Django), TypeScript/JavaScript(Angular), REST APIs, SQL, kdb+/q, HTML, CSS, Java, Google Cloud Platform (GCP), Microsoft Azure, Kafka, MQTT, networking protocols

Operating Systems:

- MacOS, Linux/Unix (Unix CLI), Windows

DevOps:

- Git, GitLab, GitHub, AzureDevOps, Jira, Docker, Visual Studio Code

Professional Experience

Software Engineer, KX Systems   *October 2021 – Present*

Delivered cloud native solutions to a selection of KX's most prestigious clients:

- Lead developer for top motorsport client, developing a data analytics platform for prototype production cars using the kdb/q technology stack. Team operated using agile software development principles with weekly sprints organised through Azure DevOps.
- Worked with the same client to develop a Proof-of-Concept (PoC) motorsport analytics dashboard for real-time and historic race car telemetry analysis using kdb/q and KX Refinery. App deployed on a Google Cloud virtual machine.
- Led the presentation of our final PoC to pre-sales department helping to secure large sale for the company.

Nearly completed comprehensive graduate training program that includes:

- Bespoke in-depth KX training on kdb/q.

- GCP Associate Cloud Engineer certification.

Lead Researcher, "Machine Learning and Financial Crises"　　　　*September 2020 – May 2021*
- Led an investigative research project to explore how machine learning (ML) models trained on public social and economic datasets can be used to predict financial crises.
- Developed ML models based on regression, random forest classifiers as well as more advanced models that use convolutional neural networks.
- Worked with a range of public and private stakeholders to evaluate and assess the performance of these ML models on several public datasets.

Lab Demonstrator　　　　　　　　　　　　　*September 2020 – August 2021*
- Lab demonstrator for first-year Computer Science undergraduates at University of Sussex.
- Answered undergraduate students' queries about the lab material and supported them to pursue their own independent research projects.

Developer, University of Sussex Hackathon Team Project　　　　*November 2019*
- Developed a website using the Node.js framework to create a quiz game for large crowds.
- The website includes a text-replying system based on the Twilio API.

Prior Experience
- Ran small technology advisory business
- Developed basic game apps for the iOS platform
- Provided technical assistance on ad-hoc outside broadcast BBC Radio productions across Europe.
- Ran small online eBay business
- Co-founded drone photography venture
- Volunteer National Trust ranger
- Labourer on construction site
- Deliveroo bicycle courier

Interests
- Keep abreast of whole technology industry (specifically, AI, FinTech & Aerospace technology)
- Astronomy
- Fossil Hunting

References

Dr Adam Barrett
Lecturer in Machine Learning – University of Sussex
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References from current employer available on request