Emanuele Levi

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Languages: Italian (Native speaker), English (Fluent)

Personal Statement

- Experienced Technical Architect with a history of successful deliveries of data science projects for large financial institutions. I have delivered projects on tight timescales acting as a technical lead from the design to the go-live phase.
- Committed and generous team worker, I have mentored junior colleagues, and coordinated efforts among different teams. Self-motivated and capable to meet the deadline, my leadership and communication skills allowed me to successfully present solution designs to various enterprise stakeholders and obtain budget.
- PhD in Mathematical Physics and strong research background. I am a natural problem solver with an analytical approach which takes into consideration enterprise constraints.

Career History

Featurespace, Cambridge, UK $\Longrightarrow$ [2018 - Present]
Technical Architect
Designed highly available event driven solutions for large-scale data science cloud and on premise deployments.

- **Technical Skills:**
  - Made full use of Amazon Web Services (AWS) tools to deploy multi-tier highly available and secure solutions, such as Application Load Balancer, EC2, Route 53, IAM, KMS.
  - Designed tiering and scalability plans for enterprise solutions.
  - Contributed to the architecture of high-performing event driven platforms with a mixture of layered and event-bus patterns.
  - Designed security hardening plans for existing deployments in PCI scope for large financial institutions.
  - Managed the deployment of NoSQL databases such as MongoDB and SQL databases such as PostgreSQL.
  - Designed HTTP based APIs based on JSON payloads.
  - Managed the deployment of a search engine based on the ELK stack (Elasticsearch, Logstash, Kibana).
  - Contributed to the definition of monitoring and support strategies based on Prometheus.
- **Communication & Management Skills:**
  - Successfully presented solution designs and deployment plans to various enterprise stakeholders in order to obtain approval and budget.
  - Directed teams of DevOps and implementation engineers in the testing and implementation phase.
  - Mentored junior members of the team both on the technical and career development aspects.

Featurespace, Cambridge, UK $\Longrightarrow$ [2017 - 2018]
Implementation Engineer
Carried out the customisation and configuration and maintained the CI/CD pipeline of backend and web applications.

- **Technical Skills:**
  - Maintained CI/CD Teamcity pipelines backed by Openstack.
  - Prepared and configured Linux CentOS servers for application hosting.
  - Successfully deployed and configured connectors to batch systems, mq-based systems and RESTful APIs.
  - Performance tested and fine tuned an Apache Storm engine.
- **Communication & Management Skills:**
  - Followed projects from the design to go-live, acting as technical lead in the implementation phase and ensuring continuity.
  - Performed installations and patching on site with customers.
  - Coordinated sprints in conjunction with customers.

University of Nottingham, Nottingham, UK $\Longrightarrow$ [2013 - 2017]

Research Physicist

Carried out original research in the quantum technologies sector and led scientific projects.

- **Technical Skills:**
  - Successfully designed and implemented object oriented packages in C++ and Python in an Agile environment.
  - Worked with large amounts of data on the university High Performance Computer (Unix cluster). Carried out statistical analysis and data visualisation with R and Python. Presented findings in meetings to plan the group strategy, and published 10 articles in high impact factor scientific journals.
- **Communication & Management Skills:**
  - Presented work at international conferences. Gave effective presentations and talks to diverse audiences.
  - Led interdisciplinary scientific collaborations between theorists (mathematicians) and experimentalists (engineers). Negotiated successful solutions and organised meetings.
  - Supervised students and mentored junior members of the group. Eager to motivate and support colleagues to give their best.

City University of London, London, UK $\Longrightarrow$ [2010 - 2013]

PhD research project

Developed analytical and numerical methods for finding minimum-energy solutions in non-linear problems.

- **Technical Skills:**
  - Designed original software in C++, Python and Wolfram Mathematica in a Waterfall environment.
  - Research output published as 4 scientific articles.
- **Communication & Management Skills:**
  - Delivered software-based solutions in a fast paced and competitive scientific field. Capable of working autonomously with respect to deadlines and work schedule.
  - Organized an international conference in King's College London on relevant research topics.

City University of London, London, UK $\Longrightarrow$ [2010 - 2013]

Programming lab tutor

Managed a lab aimed at improving students' programming skills.

- **Technical Skills:**
  - Developed programming exercises in Excel and Visual Basic.
- **Communication & Management Skills:**
  - Held effective live demonstrations in front of the class.
  - Helped and supported Economics and Maths students to overcome their programming difficulties.

Education

City University of London, London, UK $\Longrightarrow$ *[2010 - 2013]*
PhD in mathematical physics

- **Thesis research**: Universal Properties of the Entanglement Entropy in Quantum Integrable Models.

Università di Torino, Torino, Italy $\Longrightarrow$ *[2007 - 2009]*
MSc in theoretical physics, First-class honours (110/110 cum laude)

- Specialisation: Statistical physics
- **Thesis research:** Statistical physics and information geometry.

Università di Torino, Torino, Italy $\Longrightarrow$ *[2004 - 2007]*
Bsc in physics, First-class honours (110/110)

- **Thesis research:** Quantum teleportation.

Academic Awards

- *[2013-2017]*: Attracted funding of the European Research Council (ERC) and the Engineering and Physical Research Council (EPSRC).
- *[2015-2017]*: Awarded access to the Minerva High Performance Computing (HPC) facility of the University of Nottingham.
- *2015*: Authored the letter "Dynamics of many-body localization in a translation-invariant quantum glass model" which has been awarded *Editor's choice* by the American Physical Society (APS) publishing group.
- *2014*: Authored the article "Entanglement entropy in non-unitary conformal field theories" which appeared in the *Highlights* of the Institute of Physics (IOP) publishing group.
- *2014*: Obtained financial support from the IOP, EPSRC and All Souls College Oxford to hold the conference "Entanglement Entropy in Many Body Quantum Systems" in King's College and City University London.
- *2010*: Awarded a £1000 grant by City University London for travel expenses to present work at conferences.

Activities

- *[2017-Present]*: In charge of organising a weekly company football event.
- *[2013-2017]*: In charge of organising and captaining a weekly "science departments" football event.
- *[2007-2009]*: Captained an volleyball mixed team. Responsible for finding sponsors and organising the training schedule.
- *[2010-2013]*: Member of various amateur rock bands (singer). Managed rehearsals and equipment.
- On top of the aforementioned activities I enjoy sports such as skiing, snowboarding and tennis.