

# Dr Panagiotis Oikonomidis PhD, MSc, BEng

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## PROFESSIONAL SUMMARY

With over 20 years of combined experience spanning roles as a Solution Architect (for LSEG a fintech company with 8 billion dollar in revenue), a Technical Project Lead, Engineer, and a Researcher, proficiency in leading and executing complex projects in the financial and defense technology sectors (UK MoD, NATO). My background includes a PhD in electronic embedded systems, network, and cybersecurity, working on high-level and low-level systems respectively.

Currently in the role of Solution Architect at LSEG, working on high-stakes projects. Responsibilities encompass designing and implementing solutions for global market Real-Time data distribution, utilizing comprehensive knowledge of network design and cloud/on prem infrastructure.

Prior to the current role, served as a Technical Project Lead, Engineer, Researcher at Sussex University/Vetronics Research Centre, where managed stakeholder relationships, system & software designs with security in mind and led teams in delivering cutting-edge projects for UK MoD, European Defence Agency, and NATO.

A track record of delivering innovative solutions and managing stakeholder relationships underscores valuable expertise in problem-solving, technical architecture, system integration, software development, cloud infrastructure, and cybersecurity.

## WORK EXPERIENCE

### Solution Architect

07/2019 – Present

#### Refinitiv, London Stock Exchange Group (LSEG)

Nottingham, UK

- Led and served as Architect and Product Owner for a \$1.5M project, managing a cross-functional team of architects, developers, and QA engineers across multiple regions. Successfully delivered on customer requirements, resulting in expanded business agreements and future growth.
- Developed custom monitoring solutions to track latency and performance in the Real-Time market network, ensuring optimal efficiency and reliability.
- Designed Kubernetes cluster solutions focused on application storage requirements and security, alongside a PubSub (Solace) integration for financial market data exchanges. Delivered designs that contributed to the launch of a major new product, enhancing market data distribution with greater efficiency and scalability.
- Architected vertical and horizontal scaling solutions for multiple market data applications, ensuring seamless real-time performance. These solutions enhanced customer satisfaction and retention by maintaining system reliability and responsiveness.
- Designed a solution to verify customer product accessibility of market data and trigger timely alerts when expanding needs indicate the potential for new subscriptions, minimising delays and driving upsell opportunities.
- Architected and led multiple data centre migrations, ensuring seamless operation while relocating core systems and customer-edge servers. Successfully mitigated risks associated with data centre closures, completing the migrations on schedule.
- Developed and tested Python and Lua scripts to automate tasks, significantly improving operational efficiency and accelerating project delivery timelines.
- Architected a Market Data Exchange Connectivity Proof of Concept (PoC) leveraging AWS infrastructure to connect to otherwise inaccessible exchanges. Secured AWS financial backing for the project, demonstrating the solution's strategic value.

### Technical Project Lead Engineer, Postdoc

09/2010 – 05/2019

#### Vetronics Research Centre (VRC), Brighton University

Brighton, UK

- Contributed to UK MoD, European Defence Agency, and NATO-funded research projects, managing stakeholder relationships and technical project delivery.
- Managed project budgets, led teams of 3-5 engineers, and technical outputs, ensuring timely project completion.
- Mentored PhD students and contributed to their research, while hands-on in implementing Python, JavaScript, C#, MongoDB, and UML solutions.
- Designed and built a production-ready cyber security infrastructure for handling OFFICIAL-SENSITIVE material.
- **Postdoc:** Designed and built a vehicle-to-vehicle user collaboration functionality using OpenCV, NVIDIA CUDA and Unity3D for an intuitive human-machine interface.
- **Postdoc:** Designed and built a low-latency, high-availability architecture for vehicle sensors, effectors, and automated assistance systems, improving vehicle survivability using InfiniBand and TTEthernet.
- **Postdoc:** Built a Damage Assessment System (DAS) and human-machine interface (HMI) to ensure safe vehicle operation throughout its lifecycle.

## Researcher / Engineer

09/2004 – 08/2010

Vetronics Research Centre (VRC), University of Sussex

Brighton, UK

- Designed, developed and evaluated a secure High Availability MilCAN system, expanding the MilCAN specification, accepted by the MilCAN Working Group (MWG) (MoD UK-funded PhD).
- Designed an algorithm for graceful subsystem degradation to enhance redundancy and system resilience using C language.
- Created a dual bootloader in Assembly, enabling network-based device updates using C/C++03 and Assembly.
- Built a system to modify the main program's ROM over the network, improving update flexibility.
- Designed an evaluation platform to test and assess a range of embedded networks.
- Collaborated with a multi-disciplinary team to design and build a vehicle control system based on the MilCAN network, addressing both technical and mechanical requirements.

## Engineer / Technical Consultant

09/2002 – Present

Freelance

Nottingham, UK

Software as a service (SaaS) on Cloud & Web Development

- Provided custom software solutions by gathering client requirements and offering customer-facing support.
- Developed cloud infrastructure using Ansible and Docker to automate processes, improving efficiency and deployment speed.
- Built data scraping tools and generated PDF reports, delivering actionable market data insights to clients.
- Designed, developed, and maintained websites and web applications, enhancing functionality through custom CMS modules (Drupal, WordPress).
- Utilized a range of tools including HTML, CSS, PHP, MySQL, Photoshop, and Illustrator to meet clients' web development needs.

## SKILLS

**Personal:** Problem Solving, Trading Systems, Technical Architecture, Analytical Skills, Financial Data, Accelerated learning, Information Seeking, System Integration, Security, System Architectures, Distributed Systems, Embedded Systems, Scripting, Programming, Network Knowledge, Requirements Gathering

**Programming:** Python, Lua, JavaScript, C#, C/C++03, Assembly, PHP, SQL, MongoDB, UML, SysML

**Technology:** Linux, Refinitiv TREP, ITRS, BigPanda, Cloud, AWS, Azure, DigitalOcean, Docker, Kubernetes, OpenVPN, WireGuard, Jira, Ansible, Node.js, MATLAB, OpenCV, Unity3D

**Networks:** Ethernet, WAN, LAN, Pub/Sub, Solace, MQTT, CAN, MilCAN, CAN-FD, TTEthernet, TTP, FlexRay, DDS, InfiniBand

**Languages:** English (fluent), Greek (native), German (basic)

**Memberships:** Mensa UK, Institution of Engineering and Technology (IET)

## EDUCATION

**PhD** in Embedded Systems (Full Scholarship and Funding by MoD)

09/2004 – 09/2011

University of Sussex, Vetronics Research Centre (VRC)

Brighton, UK

**MSc** in Modern Digital Communication Systems

09/2003 – 08/2004

University of Sussex

Brighton, UK

**BEng** in Electrical and Electronic Engineering

09/2000 - 06/2003

University of Sussex

Brighton, UK

## CERTIFICATIONS

**Amazon AWS: Advanced Architecting course**

2021

**Python for Data Science Bootcamp**

2020

**Design Kit: The Course for Human-Centered Design** Acumen and IDEO.org

2016

**Teaching Associate** University of Sussex

2004

## TEACHING

**Visiting Lecturer in Engineering**, University of Brighton

2011 - 2019

Prepared and delivered postgraduate-level lectures and laboratories on Automotive Communication Systems.

**Lecturer in Engineering**, University of Sussex

2004 - 2011

Prepared and delivered postgraduate-level lectures and laboratories.