Frank Lynam

410-501-7378 – lynamf@gmail.com – Germantown, MD 20876

I am passionate about exercising technical expertise to identify unexpected challenges as well as novel and efficient solutions. I have experience effectively leveraging large and physically disparate technical organizations to execute on testing, analysis, development and deployment in support of data-driven capabilities. I believe tools should be designed to be useful first, and should not just meet near-term expected needs, but should provide engineered feedback to aid in continually reexamining and refining the definition of what user needs really are.

Skills

Leadership
- Led small teams (3-5 developers) for several multi-customer research and development efforts
- Project management, staffing, budgeting and customer interface (requirements elicitation)
- Active mentorship of cyber and software junior staff who have grown into technical lead roles

Cybersecurity
- Attack graph automation, system decomposition and modeling, and monitoring integration
- Working experience with NIST SP 800-53, ATT&CK, D3FEND and other approaches
- TS/SCI Polygraph Eligible

Software Development
- Python (TensorFlow, PyTorch, Numba, Cython, FastAPI, Flask)
    - Primarily special-purpose AI/ML and applied numerical methods tools
- JavaScript (Vanilla, React, SvelteJS)
- Extensive experience with C, C++, Java, VBA, Bash
- Deployment experience with user-facing tools on Windows, Linux, LXD / Docker containers

Roles

Systems Security Engineering Technical Capability Area Lead, MITRE Corporation
Define and lead systems security research priorities across the company

2016 – Present: Cybersecurity Research Roles
- Team lead for multiple internal and customer research and analysis efforts, including applied cyber and supply chain attack path analysis and other special-purpose needs
    - Lead for MITRE TRACE research and development effort (government cyber analysis tool)
    - Direct collaboration with MITRE / NSA D3FEND and ATT&CK development teams
- Provided cyber offensive and defensive technical and analysis expertise to multiple sectors, to include Navy, Air Force, nuclear weapons systems, law enforcement and other intelligence customers
    - Delivered multi-year cyber strategy for nuclear weapons platform, currently in execution
    - Developed novel cyber test analysis and planning capabilities in coordination with multiple government special-purpose cyber test activities
- Lead developer for special-purpose AI/ML and numerical methods tooling
    - Rapid deployment framework for deepfake detection as part of internal research efforts
    - Custom high-performance distributed Monte Carlo architecture for MITRE TRACE tool

Naval Reactors Engineer, Officer, US Navy
Government project manager for multiple nuclear systems across multiple platforms

2012 – 2016: Lead Engineer, OHIO Replacement Program – Project management for specific research and development programs, reactivity control equipment and cybersecurity

- Coordinated among multiple laboratories, shipyards and industry members overseeing a fully custom operating system, software, firmware and hardware to deliver novel operational capabilities meeting both demanding reactor criticality safety needs and emerging cyber concerns
- Initial cybersecurity development team member, transitioning reactor systems to NIST cybersecurity standards and practices, and developing internal standards to address cyber risk and incident response
- Developed internal electronic workflow tool (SQL, ASP.NET, Word integration) transitioning existing paper-based workflow to a fully electronic integration throughout an ~500 engineer headquarters office (to include senior military staff)

2011 – 2012: Nuclear Engineer, Operating Aircraft Carriers – Project management for reactor control, reactivity control and propulsion control systems technology and operations

- Managed design, procurement and installation for technology updates of reactor systems
- Real time support for fleet reactor issues for multiple deployed aircraft carriers

Nuclear Electrician's Mate, Enlisted, US Navy
Primarily training and education

2008 – 2011: STA-21 Enlisted Commissioning Program. SUNY Maritime College, BE Electrical Engineering, 2011. Honors: 4.00/4.00, Valedictorian, APPA DEED grant for distributed sensor grid system development, 5-year degree in 3 years

2006 – 2008: Qualified Nuclear Electrical Operator. First to qualify (of ~30), Top Electrician Nuclear Power School (of ~260), Top Electrician Nuclear Field 'A' School (of ~30)