

# Wadih Khairallah

---

## Objective

I wish to further my experiences in management, system security, architecture, and systems administration. I also look forward to being involved with the development of new systems and help in generating innovative solutions to current challenges within a team-oriented environment.

## Capabilities

Highly skilled in systems administration, systems engineering, network security and architecture. Strong ability to work in both a lead and support capacity. I work very well with others and can develop quick and efficient solutions. Learning new and interesting methods from teammates is always welcomed and encouraged. Having led many large systems builds and product releases has given me the ability to organize and release projects with efficiency and quality. I enjoy new challenges and will approach them with enthusiasm. My ability to learn quickly and adapt to a dynamic environment makes me a good candidate for this position.

**Management:** Operations, Engineering, Systems Administration, Research

**Operating Systems:** Linux, AIX, BSD, MacOS, Windows, Solaris

**Programming Languages:** Perl, PHP, Shell Scripting, Python, HTML

**Databases:** MySQL, SQLite, Redis, Elasticsearch, Cassandra, and more.

**Networking:** Network Security, Routing, TCP/IP, UDP, ICMP, IGMP, tcpdump, Nmap, Network load balancing, NetFlow / sflow and more.

**Services:** FTP, SSH, HTTP/s, DNS, POP, IMAP, SMTP, NFS, samba, SAN/NAS, SNMP, AWS / EC2, Google Cloud Services, Forward / Reverse proxies

**Other Applications:** Docker, Apache, DNS (bind, tinydns), iptables, Nagios, Tripwire, Elastic Stack, Grafana, Wireshark, Confluence / Jira, Git, Snort, Suricata, VMWare, VirtualBox, Rancher, Node-RED, Sketchup and more.

## **Professional experience**

01/2019 – Current      Trial n' Error R&D      Dania Beach, FL

### **Founder**

- Work with small business entrepreneurs looking to bring their ideas to life.
- Use of Sketchup 3D modeling software, 3D Printing, Laser Cutting and CNC tools to produce tangible prototypes.
- Basic electronic engineering using devices such as Arduino, raspberry pi, and other protoboard systems.
- Use of programming languages such as C, Python, Perl, and shell scripting.
- Design of custom enclosures to house existing prototypes to help bring customer ideas to market.

01/2018 – 03/2019      Akamai Technologies      Ft. Lauderdale, FL

### **Architect for Cloud Security Products**

- Highly focused on network data analytics and solutions for cloud-based security products. Using tools such as Elasticsearch, MySQL, Logstash, Cassandra, custom network/data parsing software, and others.
- Created solutions for automated DDoS detection and mitigation. Leveraging learning algorithms and big data solutions to craft real time detection and mitigation rules. As anomalies are detected, customer traffic can then be automatically routed over our mitigation gear. The resulting detected signatures could then be deployed across the mitigation layer.
- Designed methods for automated ACL (access control lists) creation across customers network estates. Utilizing the history of customer traffic to determine what ACLs would be most effective in protecting the customer.
- Architected an automatic attack report generator. The SOC could enter a customer IP address and a window of time. This would result in a report aggregated from sources such as log files, Elasticsearch, MySQL and more. Saving large amounts of time and resources for our SOC as they did not have to compile this data manually.

02/2014 – 12/2018      Akamai Technologies      Ft. Lauderdale, FL

### **Manager Engineering – Manager Security Research**

- Led a team of highly motivated engineers and researchers in many of the following capacities. Research, development, administration, engineering, and prototyping.
- Dealt with platform migrations and integrations. Meshing rapid DDoS detection with automated mitigation of real time attacks. Integrating platforms such as Citrix NetScaler, Redware Defense Pros, blacklisting appliances, in house detection systems, Cisco Networking gear, and in house mitigation platforms.
- Deployment, engineering, and maintenance of our global scrubbing center platforms. A mix of Cisco networking platforms, Linux hosts, proxy appliances (NetScaler), and other in house components.
- Designed and implemented a searchable network traffic index allowing for historical and real time comparisons of customer traffic. Leveraging tools such as Elasticsearch, Logstash, and custom network parsing Perl programs. Critical in the design of our in-house detection platform.

02/2008 – 01/2014 Prolexic Technologies Hollywood, FL

**Sr. System Engineer – Principal Architect – Director Engineering**

- Led a team of highly motivated systems administrators, engineers, and security professionals.
- Designed and developed the companies NetFlow network monitoring system for DDoS detection on premises. This technology included the use of Linux hosts, proxy frontends, Redis clusters, custom detection algorithms, and in-house code. This acted as a front-line detection platform that would trigger our SOC to route customer traffic onto our platform and begin mitigation.
- Worked on the continuous design and implementation of our global scrubbing center infrastructure. This encompassed Linux hosts, database platforms, reverse proxy solutions and networking equipment. These platforms were mirrored in locations such as Sydney Australia, London England, Frankfurt Germany, Hong Kong, San Jose (CA), Miami (FL), and Arlington (VA).
- Deployed the company's system wide file integrity platform resulting in the mitigation of a potential system wide compromise. Using tools such as tripwire and other automation scripts.
- Maintained mail (Sendmail), DNS (Bind), databases (MySQL) and web (Apache) platforms for internal and external services. This covered the requirements for managing our own mail, DNS, public website, and the intranet portals.
- Personally, developed our in-house monitoring platform. Using a Perl core engine, it allowed for modularity of creating new monitoring plugins. Plugins could be written in any language if it followed the input and output requirements. Simply drop code into a directory and modify one config file.

01/1999 – 01/2008 Affinity / Valueweb / Hostway Ft. Lauderdale, FL

**Systems Administrator – Systems Infrastructure Engineer**

- Maintenance and troubleshooting of a large, shared hosting platform, including web servers, mail servers, databases, SAN/NAS, clustered hosting solutions and more.
- Developed an automated weekly/daily report platform for overall systems health, usage, and growth trends. Written in Perl to aggregate data from many disperse systems resulting in a single report containing the required information.
- Developed user interfaces for tracking projects, staff management, data metrics, systems automation, and systems monitoring. This was done using a LAMP environment.
- Maintenance and deployment of core monitoring systems such as Nagios and Tripwire. This also includes the development of custom monitoring agents and plug-ins.
- Organized and managed project roll outs and system maintenance schedules for other systems administrators.
- Contributed, in a lead capacity, for the release of major system architectures and products. Such as, the deployment of Netapp NAS products, IBM Tivoli backup solutions, clustered web hosting infrastructure, and clustered mail infrastructure and DNS platforms.
- Led large scale data migrations from datacenters in California to Florida. Managed and executed the transfer of over 100TB in data and moving 30,000 customer websites with less than 20 min of downtime.
- Mentored other systems administrators in ways to approach challenges and executing solutions.

**Education**

2005 - 2005 NetApp University Baltimore, MD

**Netapp DataOntap Administration & NFS Administration**

Netapp fundamentals, DataOntap Administration and NFS administration courses complete, and credits earned towards NetApp Certification.

2001 - 2001 Cybergate / Valueweb Ft. Lauderdale, FL

**AIX System Administration / Security & Java Programming**

Course completion certificates provided.

1995 -1997 Blue Ridge Community College Flat Rock, NC

**Marketing and Retailing/Business Administration**

Associates Degree

**Honors & Awards**

12/2012 Prolexic Technologies Hollywood, FL

**Principal Platform Architect – Employee of the month.**

12/2004 Affinity Internet Inc Fort Lauderdale, FL

**Infrastructure Engineer – Employee of the year.**