## Skills

| **Backend Architecture**  6 years of experience in green-fielding testable microservices using patterns such as:   * **Domain and Test Driven Design** * **RESTful APIs** * **ADRs** (Architecture Decision Records). * **OpenAPI** specifications (aka Swagger)   **Programming Languages**   * **Java** (~*6 years*): JUnit, Spring Boot, Micronaut, Android, Tomcat, Gradle, Maven. * **JavaScript** (~*8 years*): Node, TypeScript, Jest, Cucumber, Yarn, NPM. * **Python** (~*6 years*): locust.io, scikit-learn, pytest, pypi, FastAPI, SQLAlchemy. * **C#**, **C, C++** (*<1 yea*r): Limited academic and review experience.   **Frontend Development**  8 years of experience with web based GUI development using JavaScript, HTML, and CSS using frameworks like React, Redux, jQuery, Jest, and Angular. | **Operational Expertise**   * **Containers** *(~7 years*): Docker, Docker Compose, Nomad, ECS, Kubernetes. * **Infrastructure as Code** (~*7 years*): Terraform, CloudFormation, SAM. * **Security Testing & Hardening** (~*10 years*): Peer review, Pen testing tools like burp, SAST, DAST * **Monitoring** (~*7 years*): DataDog, SumoLogic, NewRelic, CloudWatch, Splunk. * **CI/CD** (~*9 years*): Gitflow, Jenkins, CircleCI. * **Zero Downtime Deployments** (~*8 years*): Feature flags, canary deployments, on-call. * **AWS** (~*8 years*): S3, EC2, Lambda, API Gateway, CloudFront, Route53, RDS, EKS. * **On-Prem Datacenter** (~*4 years*): Ansible, Puppet. * **Linux** (*~20 years*): Ubuntu and other distributions (use and admin, not kernel development).   **Data Persistence**   * **SQL** (7 years): Oracle, Postgres, MySQL, SQL Server, H2. * **NoSQL** (3 years): DynamoDB, Redis, MongoDB. * **Search** (3 years): Elasticsearch, Lucene.   **Messaging Systems**  4 years of experience with SQS, RabbitMQ, and Kinesis. |
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## Select Work Experience

### Senior Software Engineer at Blue Origin (Oct 2021 - September 2024)

##### DevSecOps Technical Lead - Lunar DevSecOps Team

* Architected, implemented, and administered Linux-based software development systems authorized for CUI (Controlled Unclassified Information, see also NIST 800-171).
* Developed System Security Plans (SSP), and Plans of Action and Milestone (POAM), automating processes to streamline compliance.
* Established Secure Development Framework (NIST 800-218) aligning development tasks with NIST 800-53 and NASA 7150.2D standards.
* Designed and implemented frameworks for communicating security standards to stakeholders, improving adoption and consistency.
* Led security reviews for peer Merge Requests and OSS dependencies.
* Conducted security assessments for on-prem data centers, supporting hardware-in-the-loop testing for NASA's Artemis V mission.

##### Site Reliability Engineering (SRE) Lead - Lunar Mission Operations Team

* Designed a Zero Trust Architecture (NIST 800-207) for Lunar Ground Control Systems, focusing primarily on software infrastructure.
* Built a streamlined Linux-based dev environment, offering a "click-button" provisioning system for engineers.
* Defined functional requirements and developed end-user documentation, ensuring the system met SLIs.
* Established CI/CD pipelines and templates, achieving firsts for CI/CD runner management.
* Supported the MK1 Lunar Lander mission (<https://www.blueorigin.com/blue-moon/mark-1>).

##### Site Reliability Engineering (SRE) Team

* Stabilized developer tooling (GitLab, Artifactory) through infrastructure optimization.
* Develop an update process which delivered 90% reduction in vulnerability remediation time.
* Reduced CI pipeline execution time, saving about 20,000 engineer hours annually (~$2M).
* Provide consultation daily to other engineers for engineering areas I specialize in
* Drove security compliance for ISO-27001, CMMC, and FIPS, and led key project management and architectural efforts related to standards compliance.
* Developed Kubernetes-based architecture templates, enhancing deployment efficiency.

### Senior Software Engineer at Nike (Aug 2019 - Aug 2021)

##### Global Payment Team - [Initially Contracted through Randstad, converted to FTE]

* Designed multi-region cloud payment services, ensuring high availability and reliability in AWS.
* Conducted chaos engineering tests to improve system resilience in a serverless environment.
* Led initiatives to launch services in China’s AWS (aws-cn), ensuring compliance with regional regulations.
* Focused on security hardening, preventing vulnerabilities and securing customer data.
* Built highly scalable APIs in Java and Node.js, implementing layered testing strategies (unit, integration, and behavioral tests).
* Spearheaded safe deployment practices using AWS’s canary traffic-shifting for Lambda functions.
* Mentored junior engineers, fostering a culture of pair programming and collaborative learning.

##### Retail Services Team [Contracted through Randstad]

* Implemented active-active HA strategies, significantly improving service reliability across regions.
* Identified and removed $10k/month in operational overhead through Elasticsearch efficiency improvements.

## Education

| The University of Texas at Dallas |  |
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* Graduated with B.S. Computer Science in December 2015
* Areas of study include: Data Structures, Discrete Math, Algorithm Analysis, ML, AI, Network Security

*Additional Employment History and References available upon request.*