

Alan Huang

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Experience

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|---------|---|----------------|
| 01/2025 | Senior Software Engineer | |
| Present | Capital One | Plano, TX |
| | <ul style="list-style-type: none">• Worked on various initiatives to improve the developer experience for engineers in Card Tech, with a focus on test automation.• Assisted Card recoveries teams to implement automated test account creation and conditioning.• Utilized Python to assist in rearchitecting the test data management solution at Capital One in service of automated test account conditioning. | |
| 08/2021 | Software Engineer II | |
| 11/2024 | Bank of America | Plano, TX |
| | <ul style="list-style-type: none">• Led an Agile scrum team to design, implement, test, and support solutions across the tech stack through cooperation with other scrum teams and product owners.• Utilized Python, SQL, Node.JS, and Angular to develop new features and maintain existing features through Kubernetes deployments of a backend system in support of data resiliency capabilities.• Coordinated, prioritized, and took ownership of issues to drive them to resolution through frequent production releases while preserving the ability to deliver on quarterly commitments in an agile environment. | |
| 05/2020 | Assistant Database Administrator | |
| 08/2021 | Pacific Architects and Engineers, defense contractor | Fort Worth, TX |
| | <ul style="list-style-type: none">• Created, maintained, and optimized stored procedures, functions, database structures, and ETL processes written in T-SQL.• Assisted in backup and restore operations in Microsoft SQL Server.• Managed the import, export, and conversion of data through the use of SQL Server Integration Services (SSIS) packages. | |
| 05/2018 | Software Engineer Intern | |
| 08/2018 | Pacific Architects and Engineers | Fort Worth, TX |
| | <ul style="list-style-type: none">• Diagnosed and resolved network issues, including a persistent issue involving Transport Layer Security (TLS) mutual authentication.• Planned the migration of an application from TLS version 1.0 to TLS version 1.2. | |
| 05/2015 | Software Engineer Intern | |
| 08/2015 | Pilothouse Consulting | Arlington, TX |
| | <ul style="list-style-type: none">• Designed and developed training materials for administration of Microsoft SharePoint applications in Microsoft Azure for both internal and external use.• Implemented access controls and billing with Stripe. | |

Projects

Mar. 2017 OpenElections
Apr. 2020

- Used Python to develop automated conversion tools to transform PDF, CSV, Excel, and plain text precinct-level election results into a standardized CSV format; used by political scientists and organizations such as the Wall Street Journal and the Financial Times.

Oct. 2020 Fallen London Wiki
Present

- Set up a self-hosted MediaWiki instance on a LEMP stack (Linux, Nginx, MySQL, PHP).
- Performed outreach and organized a successful migration to the new instance.
- Implemented desired features by writing frontend (JavaScript) and backend (PHP) code.
- Made extensive use of Python scripting to perform routine tasks.
- Implemented caching using Varnish and Redis.
- Currently responsible for ongoing systems administration and maintenance.

Spring 2019 IntelliChoice

- Improved location selection process for an organization that provides tutoring services to underprivileged high school students.
- Implemented geocoding features by developing MongoDB schemas and writing both frontend and backend code using Node.js, Polymer, and Docker.

Skills

- Languages: Python (7 years), JavaScript (5 years), Node.JS (4 years), TypeScript (3 years), React (3 years), SQL (6 years), Java (2 years)
- Cloud Platforms: Amazon Web Services (2 years), Microsoft Azure (4 years), GCP (2 years), OpenShift/Kubernetes (3 years)
- Web security: Internet public key infrastructure (PKI), SSL/TLS, cryptography
- Database systems: Microsoft SQL Server (4 years), Oracle Exadata (3 years), MySQL (3 years), MongoDB (1 year), PostgreSQL (3 years)
- Version control systems: Git (6 years), GitHub (6 years), Bitbucket (3 years)
- Linux systems administration – compilation from source, Makefiles, toolchains
- Nginx, Redis, Elasticsearch, Varnish
- Agile software development (3 years), Scaled Agile Framework (SAFe)

Education

May 2020 **Master of Science in Computer Science, University of Texas at Dallas** GPA 3.85

Received Graduate Certificate in Information Assurance

National Security Agency Graduate Level Designation in Cyber Operations

May 2019 **Bachelor of Science in Computer Science, University of Texas at Dallas**

Awards: Collegium V Honors Program
Computer Science Computing Scholars Honors Program
National Merit Scholars Program