

Jacob Siau

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Professional Summary

Results-driven Senior Associate Software Engineer with expertise in **scalable API platform solutions**, **cloud automation**, and **secure authentication**. Adept at leading **enterprise-grade initiatives**, optimizing **CI/CD** and **DevSecOps pipelines**, and developing **intelligent automation workflows** using **Python** and **agentic AI tools**. Experienced with **LLMs**, **cloud APIs**, and **containerized deployments**, with a strong focus on **reliability**, **security**, and **performance**. Passionate about **software architecture**, **machine learning**, and **mentoring**, with a **fast-learning mindset** and relentless drive to push technical boundaries.

Education

Bellevue University – Bellevue, NE (Online)
Master of Science in Data Science (*Expected 2027*)
Relevant Topics: AI, Predictive Analytics, Big Data, LLM Deployment

Texas Tech University – Lubbock, TX
Bachelor of Science in Computer Engineering (2019)
Bachelor of Science in Physics (2019)
Minor in Mathematics

Experience

JPMorgan Chase & Co. — *Senior Associate Software Engineer*
Sep 2022 – Present | Dallas, TX

- Build and maintain **secure, scalable API platform solutions** supporting **50–100 internal/external clients**.
- Lead key **cloud** and **datacenter migration** efforts, redesigning **API onboarding** and **governance workflows**.
- Develop **Python-based tooling** for operational insights, including a **CI/CD metrics dashboard** and a **security config analytics engine**.
- Collaborate with **100+ stakeholders** and external teams to align on **API security**, **SSO/OAuth2**, and **integration standards**.
- Train and mentor **junior engineers**; serve as **backup tech lead** for a **30-person org-wide initiative**.
- Enhance deployment pipelines using **Jenkins**, **Git**, **Docker**, and **internal CI/CD tools**.
- Beta tested internal **CI/CD enhancement tools** and led **cross-team adoption**, reducing deployment times by **30%**.

Texas Instruments — *Software Engineer*
Feb 2020 – Jul 2022 | Dallas, TX

- Built **Python-based automation frameworks** to generate and validate **HDL code**, reducing **manual dev effort**.
- Led **QA system testing automation** for internal and 3rd-party tooling, enhancing **product validation speed**.
- Supported **Agile processes**, including **CI/CD improvements** and **test suite reliability tracking**.

Texas Instruments — Test Engineering Intern
May 2019 – Aug 2019 | Dallas, TX

- Delivered robust **C++ test updates** for **semiconductor devices** with **1M+ production volume**.
- Increased **test reliability** and **throughput** for **mission-critical manufacturing systems**.

Texas Instruments — Software Engineering Intern
May 2018 – Aug 2018 | Dallas, TX

- Developed **full-stack internal dashboard** (**Java, Spring, Oracle DB**) for **anomaly detection** in fab data.
 - Enabled **real-time insights** for **process engineers** using scalable **back-end filtering** and **visualizations**.
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Technical Skills

- **IDEs and Assistants:** GitHub Copilot, Windsurf, Cursor, VS Code
 - **LLMs & Prompting:** GPT-4o, Claude Sonnet, Gemini 2.X, oX series; Prompt Engineering, RAG pipelines
 - **Programming Languages:** Python, JavaScript, C++, Java
 - **API & Cloud Gateways:** Secure On-Prem & Cloud API Gateways, Facebook Graph API, AWS API Gateway, OAuth2 flows, n8n automation
 - **DevOps / Cloud Infra:** Jenkins, Git, Docker, AWS EC2, Lightsail, S3, Cloudflare Tunnel
 - **Security & Auth:** OAuth2, IAM Roles, token lifecycle management, SSO integration
 - **Automation & Analytics:** Python scripting for CI/CD telemetry, S3 orchestration, API monitoring
 - **Configuration Mgmt:** JSON, YAML, XML for infrastructure and API deployments
 - **Agile Tooling:** Jira, Confluence, Scrum, Retrospectives, Story Sizing & Prioritization
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Additional Information

- Contributor to firm-wide **API security standards** and **CI/CD adoption strategies**
- Passionate about **software architecture**, **AI**, and **mentoring junior engineers**
- Built and deployed a **self-hosted n8n automation server** using **Docker**, **AWS EC2**, **Lightsail**, and **Cloudflare Tunnel**
- Created **end-to-end AI automation pipelines** integrating:
 - **Facebook Graph API** for programmatic content publishing
 - **AWS S3** for storage and asset management
 - **ElevenLabs TTS** for AI voice generation
 - **LLMs** and **prompt engineering** for intelligent content scripting
- Prototyped **RAG workflows** and explored **agentic AI systems** using self-hosted orchestration tools
- Independently implemented automation flows for **Instagram Reels**, combining API integration, AI narration, and video rendering
- Regularly collaborate with **100+ internal stakeholders** and external partners to align on **enterprise API strategy**