# Ali Khani

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## **EDUCATION**

## University of California, Berkeley

Berkeley, CA

Bachelor's in Computer Science, Minor in Data Science

May 2025

• Coursework: Data Structures, Algorithms, Computer Architecture, Data Science, Probability, Databases, Computer Security, AI, Machine Learning, Networking\*, Operating Systems\*.

## **SKILLS**

- Languages: Java, Python, JavaScript, Golang, C/C++, SQL, Rust, HTML, CSS, TypeScript
- Libraries: React, Bootstrap, Scikit-learn, NumPy, Pandas, Matplotlib, Plotly, TensorFlow
- AI/ML/LLM: LangChain, HuggingFaceEmbeddings, GPT-40, sklearn, TensorFlow, PyTorch
- DevOps: Git, GitHub, GitLab CI, Node, Vim, Shell, Linux, Docker, Kubernetes, Jira, YAML
- Security & Tools: Semgrep Code, Wiz, Gem, IntelliJ IDE, VSCode, Rancher
- Cloud: AWS (VPC, EC2, IAM, CloudFormation, S3, Security Groups), GCP, Terraform

## **EXPERIENCE**

## Software Engineering Intern

San Ramon, CA

Five 9 - Information Security

May 2024 - Present

- Designed YAML scripts in GitLab CI to automate CI/CD pipelines into Semgrep for SAST/SCA.
- Triaged critical vulnerability findings via Semgrep Code across all Product Engineering codebases.
- Utilized Rancher for effective Kubernetes cluster management to ensure deployment efficiency.
- Leveraged Wiz to monitor & secure cloud infrastructure, triage issues, & ensure compliance.
- Conducted research on DialogFlow and Text-to-Speech to determine IAM policy best practices.

## Teaching Assistant, Data Structures (CS61B)

Berkeley, CA

University of California, Berkeley EECS

Aug 2022 - Aug 2023

- Taught discussion & lab sections of 40+ students each in Berkeley's largest class (1800+ students).
- Created project presentations, API guides, & Git guide as resources for student projects and HWs.
- Resolved issues for Git workflow, IntelliJ configuration & debugging, and automated testing.

## **PROJECTS**

## Fivey — Python, LangChain, GPT-4

Jun 2024 - Aug 2024

- Built a chatbot on LangChain to query Confluence data via HuggingFaceEmbeddings & GPT-4.
- Leveraged Streamlit UI to improve accessibility for employees querying internal documentation.
- Enhanced chatbot's deployment with REST API & ensured robust deployment via Docker.

#### Dropbox — Go

Feb 2024 - Apr 2024

- Designed a secure file-sharing system in Go emulating Dropbox, incorporating cryptographic functions for user authentication and secure operations.
- Produced a comprehensive peer-reviewed design document, outlining architectural and security measures, with rigorous testing and development cycles for robust system implementation.

#### Gitlet — Java

Jun 2023 - Jul 2023

- Created version-control system emulating Git with commit, merge, and branching functionalities.
- Designed efficient snapshot storage & history tracking, incorporating SHA-1 hashes for content ID.
- Developed a serialized persistence model for state retention, emphasizing CLI argument validation.

#### RookieDB — Java

Jan 2024 - May 2024

- Led development of database with core functionalities like B+ tree indexing & query optimization.
- Implemented concurrency control and recovery system following ARIES protocol for data integrity.
- Extended capabilities with NoSQL interface, showcasing adaptability and technical leadership in database design.