# IRIS HO
Software Engineer

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## Skills

*The following are sorted by proficiency*

| | |
|---|---|
| **Languages** | Python · C · Java · JavaScript · LaTeX · Bash · Standard ML · Go · HTML · CSS |
| **Frameworks** | React · Flask |
| **Databases** | MongoDB · MySQL · Neo4j |
| **Tools** | VS Code · GitHub · Unix · Vim · Airflow · Presto · S3 · Valgrind · Perforce · GDB · Jenkins Docker · Kuburnetes · GCP gcloud CLI · Terraform · Grafana |
| **Other** | Cantonese · Mandarin · Japanese |

## Experience

**Software Engineering Intern**   MongoDB                              06/2022 - 08/2022, 06/2023 - 08/2023
· Added type annotations to Python driver code base
· Increased the performance of the Python driver by up to 134%
· Broke down projects into 40+ tickets for development
· Defined the specification for a project including designing the software architecture that accounts for future improvements after project handoff
· Implemented a GO program that read hundreds of queries every hour from S3 and stored the lineage in the Neo4j database
· Utilized the open source Trino SQL parser to extract data lineage from queries
· Built a backend flask API that queries a Neo4j database

**DevOps Intern**   2K Publishing                                                           06/2021 - 08/2021
· Attended daily scrum meetings and worked on a team with  20 software engineers
· Expanded on VCS knowledge by learning how to interact with Perforce professionally
· Made a Grafana dashboard to highlight key metrics exposed by Prometheus
· Successfully migrated a business critical preexisting Jenkins pipeline without impeding the application team
· Assisted in the completion of over 11 tickets supporting multiple teams
· Presented technical topics four times, breaking down subject matter silos and communicating complex topics clearly in a digestible format

**Software Developer**   Hack4Impact - Student Club                                09/2020 - 09/2022
· Collaborated on a team with local non-profits to develop a website using the MERN stack that allows for management of operations and volunteers

**Teaching Associate**   Cal Poly                                                          01/2023 - Present
  Fundamentals of Computer Science · Discrete Structures

**CLA Student Technician**   Cal Poly                                                    09/2019 - 09/2021

**Instructional Student Assistant**   Cal Poly                                          01/2021 - Present
  Introduction to Computing · Fundamentals of Computer Science · Data Structures
  Object-Oriented Programming and Design · Design and Analysis of Algorithms · Theory of Computation
  Gender, Race, Culture, Science, and Technology

**Resident Advisor**   Cal Poly                                                           01/2021 - 06/2023

## Projects

**Interpreter**   Cal Poly                                                                09/2021 - 10/2021
· Implemented an interpreter for a programming language that supports functions/closures, objects, and dynamic type checking in Standard ML

## Education

**California Polytechnic State University**   San Luis Obispo
Masters of Science in Computer Science             Target Graduation: June 2024
Overall GPA: 3.866                                 Major GPA: 3.94

## Coursework

Data Structures · Systems Programming · Operating Systems
Computer Organization · Computer Architecture · Object-Oriented Programming and Design
Discrete Structures · Design and Analysis of Algorithms · Theory of Computation
Programming Languages · Compiler Construction · Artificial Intelligence