

# RISHI IYER

## Software Engineer

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## EXPERIENCE

### SOFTWARE ENGINEER INTERN

#### Hewlett Packard Enterprise

📅 May 2020 – Present

📍 San Jose, CA

- Developed query detection system to catch erroneous SQL queries with invalid syntax before execution
- Built parser to convert txt files describing query features into a python dictionary for use in other modules

### SOFTWARE ENGINEER INTERN

#### Rocketship Ventures

📅 June 2017 – August 2017

📍 Palo Alto, CA

- Built automated pipeline to extract social handles and company data from Raw HTML using BeautifulSoup
- Parsed and wrote data to a remote database using SQLite
- Created an updater to store and plot company information with HiCharts
- Set up an installation of company's internal website on Nginx/Unicorn with SSL encryption

### PRESIDENT

#### Kidz Kode

📅 January 2014 – August 2018

📍 Cupertino, CA

- Developed interactive 6 week curriculum to teach young students the basics of programming in Java
- Managed 12 teachers volunteering across 4 libraries

## PROJECTS

#### Pac-Man AI (CS188) - Python

- Implemented depth-limited Minimax with alpha-beta pruning
- Implemented Q-Learning and Approximate Q-Learning, with agent winning over 95% of test games.
- Added functionality to determine ghost location from sensor readings using Joint Particle Filtering

#### Digit Classifier/Language Identifier (CS188) - Python

- Implemented a neural network to classify digits from 28x28 pixel images. Achieved a test accuracy of 98%
- Implemented a recurrent neural network to identify language for words. Achieved a test accuracy of 85%

#### Database System (CS186) - Java

- Developed a full database in Java with minimal skeleton code
- Implemented B+ tree indices, efficient join algorithms, query optimization, multi-granularity locking for concurrency, and recovery with WAL and ARIES

#### Housing Price Predictions (Data 100) - Python

- Processed data and added features using one-hot encoding and bag-of-words representation
- Made predictions using linear models with Lasso and Ridge regularization, as well as a Random Forest model

## EDUCATION

### University of California, Berkeley

#### B.A Computer Science

📅 May 2022

- Efficient Algorithms and Intractable Problems (CS 170)
- Artificial Intelligence (CS 188)
- Database Systems (CS 186)
- Principles and Techniques of Data Science (Data 100)
- The Structure/Interpretation of Computer Programs (CS 61A)
- Data Structures (CS 61B)
- Computer Architecture (CS 61C)
- Discrete Mathematics and Probability Theory (CS 70)
- Designing Information Devices and Systems I/II (EE16A/EE16B)

### The Harker School

📅 May 2018

- GPA: 4.3
- National AP Scholar with Distinction

## TECHNICAL SKILLS

Python, Java, C

● ● ● ● ●

SQL

● ● ● ● ●

JavaScript, HTML/CSS

● ● ● ● ●

RISC-V

● ● ● ● ●

Ruby

● ● ● ● ●

## SOFTWARE SKILLS

Git

● ● ● ● ●

Pandas, Scikit-learn

● ● ● ● ●

BeautifulSoup

● ● ● ● ●

Linux

● ● ● ● ●

Spark, OpenMP

● ● ● ● ●

Nginx, Unicorn, SSL

● ● ● ● ●

Rails, Sinatra

● ● ● ● ●

React, AngularJS

● ● ● ● ●