

# JONATHAN C. WONG

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## EDUCATION

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### San Jose State University

Aug 2016 - May 2020 (Expected)

- Bachelor of Science in Computer Science, Mathematics Minor
- Dean's List (all semesters), Cumulative GPA: 3.7

### Notable Coursework

- Data Science in Python, Data Structures and Algorithms, Object-Oriented Design, Deep/Machine Learning Database Management Systems, Programming Paradigms, Solving Big Data Problems

## EXPERIENCE

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### NASA Ames Research Center

Aug 2018 - Present

#### *Software Engineering Intern*

- Building an open-source database storage and retrieval system for the astronomical research community.
- Developed a dynamic web-interface in React for intensive querying of metadata and data uploads.
- Created a Express.js/MySQL microservice in order to handle terabytes of data processing.
- Streamlined raw text, metadata, and JSON into data warehouse through ETL pipeline.

### Cisco Systems

May 2018 - Aug 2018

#### *Software Engineering Intern*

- Intern for the Enterprise Data Services team which handles all Hadoop/HANA/Teradata clusters. Pushed and maintained a transaction/ticketing system into production as the sole developer.
- Created a RESTful API in Spring MVC, following clean coding practices and the DAO design pattern.
- Designed and implemented a reactive front-end in Angular consisting of dashboards, forms, and validation.
- Prototyped a Convolutional Neural Network in Keras that classifies between different employees within Cisco's internal directory system.

### Sandia National Laboratories

Jan 2018 - May 2018

#### *R&D Software Engineering Intern*

- Developed new features and fixed bugs on a nuclear-detecting GIS web application in PHP and Javascript.
- Wrote efficient log file processing and web scraping scripts for 50GB of SQL commands and raw HTML.
- Created an aggregation of raw HTML pages from webscrapes of internal server pages using Python.
- Solved deprecation and dependency issues on a legacy production application in Ruby on Rails.

## PROJECTS

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### Image Recognition Model - Used: Python, Tensorflow, Keras

- Created a 17-layered Convolutional Neural Network in Keras (backed by Tensorflow) that classifies between images of vehicles and animals. Trained on the CIFAR-10 dataset and achieved a 78% accuracy rate.

### Photo-caption Webscraper - Used: Python, BeautifulSoup, Regex

- Webscrapping program that collects and analyzes the New York Social Diary's photo-captions in order to gather the list of unique people that have attended parties in New York given a range of dates. Program also creates mutual friendship entities on a graph-based backend.

### Food Review Analytic Report - Used: Python, Pandas, Numpy, Matplotlib

- Performed data cleansing operations on a large dataset of NYC restaurant reviews in Pandas. Generated data visualization charts and heatmaps in Carto in order to analyze NYC food hotspots.

## TECHNICAL SKILLS

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### Programming Languages

Java, Python, JavaScript, Typescript, HTML/CSS, SQL

### Frameworks & Others

Spring MVC, Angular, Node.js, React.js, Express.js, MySQL, Oracle, Pandas, NumPy, Flask, Keras, Bootstrap