






# Aravind Segu

3<sup>rd</sup> Year Software Engineering Student

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## Skills

### Languages:

Java, Python, C/C++, PHP, Scala, Go  
C#, Matlab, JavaScript

### Frameworks and Tools:

Pandas, Selenium, Apache Kafka, Flask,  
Ionic, Unity3D, Elasticsearch, React,  
ASP.NET, AngularJS, jQuery,

### Database and Servers:

SQL, PostgreSQL, AWS

## Education

**University Of Waterloo**    **2016 - Present**  
Software Engineering  
Option in Artificial Intelligence  
GPA: 3.9/4

**Stanford University**    **Jan - Apr 2018**  
Machine Learning Course

## Awards & Certifications

**Hack The Valley**    **2018**  
MLH 3rd Place from 76 Teams

**Electric City Hackathon**    **2017**  
Top 5 and Recipient of  
Wolfram Alpha Award

**Dean's Honors List**    **2019**  
2016 - 2019

**Oracle Certified Associate**    **2016**  
Java SE7 Programmer

**Royal Canadian Air Cadets**    **2016**  
Effective Speaking Award

## Work Experience

**Apple** | Siri Understanding Software Engineer    **May 2019 – Present**  
*Java, Apache Kafka*

- **Improved performance** and **reliability** of **Siri Training Data** Systems which support **over 150,000 requests** per week.
- Removed dual responsibility on data chard servers to **decrease response time** by over 15%
- Utilizing **Apache Kafka** to **reduce server instances** by over 50% while simultaneously increasing fault tolerance and reliability

**Reebee** | Backend Software Engineer    **Sept 2018 – Dec 2018**  
*PHP, Go, MySQL, Elasticsearch*

- Restructured and optimized the database architecture to **reduce storage space** by 6% and **improve response time** by more than 20%
- Integrated **Sutherland-Hodgman algorithm** to better assign products with images, increasing the probability of a correct match by 60%
- Utilized **Elasticsearch** to develop a **full text search engine** for a database with more than 1 million items

**DRW** | Full Stack Developer    **Jan 2018 – Apr 2018**  
*JavaScript, Python, React, ASP.NET, MySQL*

- Integrated **Dijkstra's algorithm** with google maps to develop a web interface that determines the **shortest network path** which connects data centers across the world
- Developed and deployed a single-page web application to handle data management and configuration of more than 70 web scrapers.
- Programmed dynamic and flexible **web-scrapers** utilizing Python and Scrapy to collect relevant competitive intelligence information

**Bluejay Networks** | Software Engineer    **May 2017 – Aug 2017**  
*Java, JavaScript, Angular, MySQL, Ionic, AWS*

- Pioneered an **electronic prescription platform** for mobile and web
- Utilized Java EE with the Spring Framework, SQL and AWS to build and deploy backend codebase
- Developed supporting **Android, iOS** and **Web** applications utilizing Ionic, JavaScript and AngularJS

## Student Design Team

**Watonomous** | Subteam Lead - Path Planning    **Sept 2018 – Apr 2019**  
*C++*

- Involved in developing an **autonomous self-driving vehicle** for the SAE AutoDrive Challenge
- **Leading** a team of 10 members to redesign the **costmap** to integrate various obstacles on the road to **reduce latency** by more than 70%
- Responsible for enhancing the **A\* algorithm** to calculate the ideal path for the car while obliging with traffic rules

## Select Projects

**DriveSafe**    **Mar 2018 - Present**  
*Python*

- Designed a **three-layer neural network** which performs **photo recognition** to identify different types of impaired driving
- Implemented **PCA, conjugate gradient algorithm** and regularization to prevent overfitting and improve the rate of training