# Karthik Kolathumani

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## EXPERIENCE

- **Oracle** — Redwood City, CA
  *Applications Developer 2* — *July 2019 - Present*
  - Developed increments for Oracle's ERP Procurement Sourcing software by proposing technical designs, feasibility, and programming complex business logic requirements.
  - Implemented and tested RESTful services for business flows using Oracle's Application Development Framework.
  - Designed, programmed, and optimized asynchronous PL/SQL Enterprise Scheduler jobs for validating and processing over 100k rows of data.
  - Performed Functional and Regression tests for feature enhancements for all quarterly releases by writing tests in the jUnit framework with an average 90% code coverage.
  - Currently involved in migrating and integrating ADF Faces UI with Oracle's JET UI.

- **Pierce County** — Tacoma, WA
  *IT Intern* — *Sept 2018 - March 2019*
  - Designed and developed web applications and RESTful services using AngularJs and Grails for the county's online IT services.
  - Enhanced and programmed existing code base to sign documents digitally.
  - Wrote Unit, Integration, and end-to-end test suites using Spock and Jasmine framework.

- **Capgemini Pvt. Ltd.** — Bengaluru, India
  *Software Engineer* — *Oct 2015 - July 2017*
  - Migrated a data warehouse schema from Relational to a NoSQL Cassandra store to optimize report performance.
  - Remodeled database schemas, performed ETL, and rewrote optimized SQL queries for new report view models.
  - Provided post-production support by monitoring the Cassandra cluster and automation tools like Ansible, Jenkins, and Graylogs.

## EDUCATION

- **University of Washington** — Tacoma, WA
  *Master of Science in Computer Science and Systems GPA: 3.63* — *Sept 2017 – March 2019*

- **Amity University** — Haryana, India
  *Bachelor of Technology in Computer Science and Engineering* — *June 2011 – June 2015*

## PROJECTS

- **Empirical study on network flow algorithms**: Conducted an empirical study on the running time of network flow algorithms for the control plane (e.g., Ford-Fulkerson and Preflow-push). Tested running time on several factors such as choice of data structures, choice of algorithm to find the path, cycles in graphs, graph size, and graph type.
- **Machine Learning algorithms to profile users on Facebook**: Developed an ensemble with 82% accuracy using XGBoost on Facebook profile picture data. Designed and implemented a Convolutional neural net and performed transfer learning techniques to tweak image models like CIFAR10, Inception V3, and VGG16 for binary and multi-class classification using TensorFlow and OpenCV.
- **Smart IoT Mirror using raspberryPi**: Designed and Programmed a Level 4 IoT smart mirror capable of facial recognition with a personalized interface for day-to-day analytics and actuating capabilities. Developed web services to perform analytics based on user's interaction with the device.

## PROGRAMMING SKILLS

- **Languages**: Java, Golang, C++, PL/SQL          **Technologies**: AWS, Azure, Docker, Jenkins, Git