





# Aman Dureja

software developer

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## Experience

**Agile Software Engineer** • TribalScale Winter 2017 | Toronto, ON  
*Amazon Alexa, Ruby on Rails, NodeJS, ReactJS, SQL*

- Developed an **Alexa** skill with **NodeJS** for the NBA playoffs, attracting **1000** users
- Wrote an **adapter** to transform NBA API responses to custom data structures
- Built a resource allocations tool that handles over **100K** records with **ReactJS**
- Leveraged **server-side rendering** with a **CDN** to accelerate Athos website by **20%**
- Designed Contentful CMS templates for **dynamic publishing** on Athos website
- Applied **concurrency** strategies on a **Ruby on Rails API** to prevent data corruption

**Software Developer in Test** • Mappedin Summer 2016 | Kitchener, ON  
*ReactJS, NodeJS, MongoDB, Jenkins CI, Sahi Pro*

- Built features for CMS and map design application, impacting over **37M** users
- Integrated automated **error tracking** into production map kiosk software
- Architected an **automated** testing and deployment pipeline using **Jenkins CI**
- Improved testing process efficiency by automating over **200 integration tests**

## Projects

**ARM CPU Emulator** • OCaml, ARMv4T • amandureja.com/arm-cpu-emu

Software implementation of an **ARM7TDMI processor** core that interprets the ARMv4T THUMB instruction set. Leveraged **functional programming** in OCAML.

**SockServe** • C++ • amandureja.com/sock-serve

A low-level, object-oriented server toolkit programmed using **TCP sockets**. Supports handling **HTTP** requests with callback functions.

**Side-Scroller Game** • Java • amandureja.com/side-scroller-game

A **multithreaded** side-scrolling game in which the player must collect items while avoiding obstacles. Programmed using **object-oriented design principles**.

**Alexandria** • NodeJS, Firebase • amandureja.com/alexandria

A **server-side** application that serves snippets from a library of over **50,000** public-domain books. Developed at **Hack the North** 2016.

## Skills

### Languages

- JavaScript
- CSS3
- Ruby on Rails
- Java
- C++
- C
- Python
- OCaml
- SQL

### Technologies

- Git
- Amazon Alexa
- NodeJS
- ReactJS
- AWS
- CI (Jenkins, Circle)
- Firebase
- MongoDB

## Education

### University of Waterloo

**BSE** - Honours Bachelor of Software Engineering

2015 - 2020

### Interests

- Hackathons
- Music
- Cooking
- Fitness