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; attracted **1000+** users
- Wrote a **JSON adapter** to model NBA API responses as custom data structures
- Applied **concurrency** strategies on a **Ruby on Rails API** to prevent data corruption
- Built a resource allocations tool using **ReactJS** to manage over **100K** records
- Accelerated Athos website speed to **120%** using **server-side rendering** and a **CDN**
- Designed custom CMS templates for **dynamic publishing** on Athos website

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. Leverages **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.

GooseRun • C   *amandureja.com/goose-run*

An infinite side-scrolling, obstacle avoidance game for the Texas Instruments **Launchpad** microcontroller. Developed using the **Energia IDE**.

Skills

Languages

- C++
- C
- Java
- Python
- OCaml
- Ruby
- JavaScript
- SQL

Technologies

- Git
- Amazon Alexa
- AWS
- NodeJS
- ReactJS
- Ruby on Rails
- CI (Jenkins, Circle)
- MongoDB
- CSS3

Education

University of Waterloo

BSE - Honours Bachelor of Software Engineering

2015 - 2020

Interests

- Hackathons
- Project Euler
- Music
- Cooking
- Fitness