# Joshua Allum

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## Work Experience

### Cognite AS  Oslo, Norway. Sep-Dec 2019
FRONT-END ENGINEER

• Worked daily on front-end of <u>Asset Data Insight</u> application, writing high performance, re-useable code with monthly sprints and rollouts.

• Implemented **design curve overlays on scatterplots** with option to upload CSV or manually enter X-Y pairs, solving company-wide <u>pump performance curve</u> use case.

• Significantly improved **development experience**, **linting** and **testing utilities** of custom graphing library <u>Griff</u>.

### IBM Canada Toronto Labs  Toronto, Canada. Jan-May 2019
CLOUD PLATFORM PROJECT DEVELOPER

• **Unified and secured** user sign-in experience across full range of internal microservices by implementing an **OAuth2 Central Authentication System (CAS).**

• **Optimized page load time** and **caching strategy** for Client Management Tool, used by all Account Managers.

• Drove task management/recording tool, both **backend API** and **frontend UI**, from conception to production **incorporating feedback** from TAMs, and **integrating** with existing tools, in an agile team environment.

### Massy Technologies InfoCom  POS, Trinidad. May-Aug 2018
SOFTWARE DEVELOPER/DATA SCIENCE ASSISTANT

• Created InvioBox, a convenient DropBox-like service that will be available in <u>InvioCloud</u> packages, Massy's Cloud Computing offering.

• Constructed data pipelines using **Market Basket Analysis** and **Cluster Analysis**. Integrated pipeline with Massy Stores' expansion into online sales to **predict customers' carts** and **recommend items**.

• Produced statistics and tangible metrics of inter-branch performance based on large datasets (several GB) of transactions using Pandas, Plotly, and Watson.

## Education

### Honours Computer Science Co-op
University of Waterloo, expected Winter 2021

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|---|---|
| **Cumulative Average:** | 85.63% |
| **Faculty Average:** | 87.27% |

## Achievements

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|---|---|
| **Watson Build Finalist** | 2018 |
| **National Open Scholarship** | 2015 |
| **Chief Scout Award** | 2015 |
| **10th Overall CAPE CS** | 2014 |
| **Music Festival Band Winner** | 2012-16 |

## Skillset

**3+ years experience & shipped product**

JavaScript (ES6+), TypeScript, React, Storybook, Styled-Components, testing-library, testcafe, React-Native, Angular, HTML5, CSS3, Git, NodeJS, MongoDB, Firebase, Docker, LaTeX

**Some experience & comfortable with**

C++, C#, .NET, webpack, SQL, PostgreSQL, GCP, AWS, Nginx, R, Python, Flask, Plotly, Matplotlib, Numpy, Pandas, OpenCV, scikit-image

## Clubs

### <u>Assoc. of Caribbean Students</u>  2017-20
Web admin for 4 years. Created <u>club website</u>.

### <u>UW Blueprint</u>  2018-20
Collaborated with other students to develop software solutions for NPOs.

## Projects

### <u>T&T Mobile Delivery</u>  React, TypeScript, Styled-Components, Storybook, Firebase  2019
• **Developed** and **launched** solution to allow users to buy and trade iPhones safely, quickly and easily in T&T.

### <u>Best Friends Animal Society App</u>  Flask, OpenCV, Tensorflow, scikit-image, Docker, React-Native  2018
• Developed dog image quality ensurance app since image quality heavily influences adoption rate at <u>BFAS</u>.

• **Detected and classified** dogs and **calculated their bounding boxes** to ensure they appear in centre of frame.

• Utilized scikit-image and OpenCV to **detect and filter dim and blurry** images respectively.

### <u>Cadiovascular Disease Risk Calculator</u>  NodeJS, React, JavaScript  2018
• Collaborated with Prof. Amalia Hosein of <u>University of Trinidad and Tobago</u> as part of her doctorate thesis.

• Implemented Prof. Hosein's **risk calculation algorithm** in NodeJS API and developed <u>POC React web app</u>.

• Backend API is **in use** by a mobile app developed by UTT undergraduate students as a term project.

### <u>STAT 230 Course Notes</u>  LaTeX  2017
• Created fully-fledged book including proofs, theorems, graphs and original examples, for STAT 230 at UW.