

# Nicholas Westbury

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4B Computer Science - Waterloo ID #: 20550430

## Key Skills

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**Languages** Python, Go, C, C++, C#, SQL, PHP, JavaScript, HTML/CSS, Bash  
**Technologies** Docker, ES6, NodeJS, ReactJS, React Native, PostgreSQL, MongoDB, Apache, Nginx, Django, Git  
**Bilingual** Fluent in verbal and written French

## Education

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### University of Waterloo

CANDIDATE FOR BSc, COMPUTER SCIENCE

Waterloo, Ontario

Sept. 2015 - Apr. 2019 (Projected)

## Work Experience

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### Ultimate Software

FULL-STACK SOFTWARE ENGINEER

San Francisco, CA

April 2018 - December 2018

- Supported website survey timeseries and question bank features
- Integrated new Angular client-side continuous integration testing framework
- Increased maximum number of possible concurrent users on dashboards by 4x by reducing CPU load

### Toronto-Dominion Bank Asset Management

PORTFOLIO ANALYTICS FULL-STACK WEB DEVELOPER

Toronto, ON

August 2017 - December 2017

- Supported portfolio management tools implemented bulk portfolio loading, import tool, administrator session editor
- Improved React front-end website rendering performance 10x by reducing state-update

### ARB Labs

PYTHON DATA SCIENCE & WEB DEVELOPER

Niagara Falls, ON

January 2017 - April 2017

- Improved accuracy of image-recognition random-forest algorithm to recognize casino chips
- Wrote Python extension in C to interface with camera
- Cooperated with front-end developer to create a REST API using the Django, MongoDB stack

### Computer Science Computing Facility (CSCF)

PYTHON WEB DEVELOPER

Waterloo, ON

May 2016 - September 2016

- Created PostgreSQL database queries to fetch, search and modify student records
- Accelerated search page load time 15x

### Reinforcement Learning and Artificial Intelligence (RLAI) Lab

NSERC UNDERGRADUATE RESEARCH AWARD INTERN

Edmonton, AB

Summer 2013-2015

- Implemented machine learning for continuous-space search and reinforcement learning algorithms for Roomba shape detection
- Ran and created computationally-intensive scripts on the Compute Canada supercomputer cluster

## Hackathons & Projects

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2018	<b>Agrobot</b> , Won Hack the North 2018 with a weed-detecting and picking robot
2017	<b>Fourth Wall</b> , Brought augmented reality (AR) to virtual reality (VR) platforms
2017	<b>Roomie</b> , Created automated interior design algorithm & web frontend, won 1st out of 41 teams
2016	<b>Third Sense</b> , Won Hack the North 2016 with VR haptic feedback vest against 300+ teams
2016	<b>CopyEverything</b> , Placed 1st with a cross-platform clipboard sharing application
2015	<b>Investleduc.com</b> , Created commercial website with custom backend email server
2009-2014	<b>FLL/FTC Robotics Team</b> , Programmed for four-time national champion robotics team