Nicholas Westbury

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3B Computer Science - Waterloo ID #: 20550430

Key Skills

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

Education

University of Waterloo *Waterloo, Ontario*
Candidate for BSc, Computer Science *Sept. 2015 - Sept. 2019 (Projected)*

Work Experience

Toronto-Dominion Bank Asset Management *Toronto, ON*
Portfolio Analytics Full-Stack Web Developer *August 2017 - December 2017*

- Supported suite of online portfolio management tools used to manage $10+ billion
- Added features including: bulk portfolio loading, transaction import tool, and an administrator session editor
- Improved front-end website rendering performance 10x by reducing the amount of React state updates

ARB Labs *Niagara Falls, ON*
Python Developer *January 2017 - April 2017*

- Improved performance of image-recognition random-forest algorithm to recognize casino chips
- Wrote low-level C code to interface with camera
- Cooperated with front-end developer to create a REST API using the Django, MongoDB stack

Computer Science Computing Facility (CSCF) *Waterloo, ON*
Python Web Developer *May 2016 - September 2016*

- Improved the graduate student admission website, based on client requests
- Created PostgreSQL database queries to fetch, search and modify student records
- Accelerated search page load time 15x

Computer Curling Research Group (CCRG) *Edmonton, AB*
NSERC Undergraduate Research Award Intern *May 2015 - September 2015*

- Implemented supervised machine learning algorithm
- Ran computationally-intensive scripts on the Compute Canada supercomputer cluster
- Created and presented a technical research poster

Reinforcement Learning and Artificial Intelligence (RLAI) Lab *Edmonton, AB*
Computer Science Research Intern *Summer 2013, 2014*

- Implemented a reinforcement learning algorithm to teach a Roomba-like robot to recognize shapes
- Programmed a graphical user interface in Python
- Presented a poster which showcased TD-lambda along with a live demonstration of the robot

Projects

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

References available upon request.