Karanbir Randhawa

3B Computer Engineering at the University of Waterloo

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TECHNICAL SKILLS

Languages: Python, node.js, Java, and familiar with C#, C, C++

Toolset: Git, Nginx, MongoDB, SQL, Linux, scikit-learn, TensorFlow, Google BigQuery and more.

WORK EXPERIENCE

Ten Thousand Coffees, Toronto ON — Software Engineer

JANUARY 2016 - APRIL 2016 (4 month internship)

- Independently constructed user-to-user matchmaking system powered by TensorFlow deep learning library, resulting in more relevant matches for user.
- Integrated robust reminder system into platform, utilizing actor model for notifications.
- Overhauled analytics with dozens of new insights, outfitted with MongoDB 3.2 aggregations.
- Additional projects included: profanity detection, user discoverability scoring, BigQuery data extraction tools, dozens of new UI views and more.

IBM, Toronto ON — Software Developer Intern (StrongLoop node.js Team)

JANUARY 2016 - APRIL 2016 (4 month internship)

- Fully designed and developed an open-source node.js framework for creating race car AIs that could be deployed to the cloud. Used websockets for real-time racing.
- Created a GitHub analytics application to view metrics and historical data within git history.
- Included: a bug prediction algorithm to identify error-prone areas in code using commit history, issue analysis, velocity tracking, data visualization, PDF/CSV exporting and more.

Nascent Digital, Toronto ON — *App Engineer*

MAY 2015 - AUGUST 2015 (4 month internship)

- Built the Heart & Stroke Risk Assessment eTool, a massive web-app to track health and fitness.
- Integrated Office365 API to DocuSign WP8 app and synchronized login across multiple servers.
- Other tasks included adding email subscription service, making APIs pipeline data to external databases and optimizing SQL queries.

FlashStock (formerly Shuttered Corp), Toronto ON — App Engineer

MAY 2015 - AUGUST 2015 (4 month internship)

• One of three developers contributing to core server-side API, building crucial features such as user account services, password reset, photo uploading, searching and curating tools.

Catamaran RX, Toronto ON — *App Engineer*

JAN 2015 - MAY 2015 (4 month internship)

• Created features for pharmaceutical system, with emphasis on search navigation and forms.

PROJECTS

Speech-Gen (<u>Github</u>). Using a recurrent neural network to generate speeches for speakers like Obama. **Android Wear Lift** (<u>Github</u>). Android fitness application to record exercises via Android Wear watches. **My Memory App for iOS** (<u>Store</u>). iPad memory training application using a flip and match card game.

EDUCATION

University of Waterloo, Computer Engineering B. ASc.

EST. GRADUATION 2018

• Data Structures and Algorithms, Operating Systems, Compilers, etc.