

ANGAD SINGH PURI

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EDUCATION

University of Waterloo, 3A, Computer Engineering

Relevant Courses: Algorithms and Data Structures, Linear Algebra, Discrete Mathematics, Signals and Systems

Coursera Deep Learning Online Course

Relevant courses: Convolution Neural Network, Recurrent Neural Network, Improving Deep Neural Networks

WORK EXPERIENCE

Gamma-Dynacare Medical Labs, *Predictive Analytics Analyst*

Sep 2017 - Jan 2018

- Engineered **RNN-LSTM** for **time-series data** to make **weekly prediction** for hourly patient volumes by tests for **200 Dynacare location**
 - Improved prediction accuracy from **74% to 96%** by adding exogenous variables, and fine-tuning **RNN-LSTM** parameters
 - Applied **queuing theory** to model wait time and optimized the number of staff using **constraint programming**, thus automating work
 - Scrapped **1.3 million images** of scanned Ontario medical forms from company's **data lake** making comprehensive DB of medical form
 - Utilized **transfer learning**, retrained last fully connected layer of a **CNN** with custom data to extract the dialog box data with **92%** accuracy
 - Responsible for research, project architecture, constraints optimization, project management, updating the business team, automation
- Technologies/ Tools:** Python, SQL Server 2016, T-SQL, Anaconda, Excel, VBA, BeautifulSoup, Alteryx, H2O

Vocatok, *Software Architect*

Aug 2017 - Current

- Vocatok is an android **voice messaging** app that lets users share voice stickers, voice emoticons, images, videos, contacts and user location
 - Responsible for application **architecture design**, unit testing and optimizing the backend for client-server model on **AWS**
- Technologies/Tools:** Android Studio, Java, XML, Twilio, AWS, Invision, Crashlytics

Blackberry, *Software Engineering Intern*

Jan 2017 - May 2017

- Worked in **UNIX** based environment, developed Android applications and services in **JAVA** using **native Android SDK** including applications for Blackberry Hub, Contacts, Calendar, Tasks, and Notes
 - Conceptualized a **Restful service** for maintaining the data of all 6 apps, reducing the maintenance hours by **400%**
 - Gained a solid understanding of **project management** and software development life-cycle in an **agile** environment
- Technologies/Tools:** Android Studio, Java, XML, SQLite, UNIX, Gerrit, Jenkins

PROJECTS

Recruit Restaurant Visitor Forecasting, Kaggle Competition

2017

- Implemented **CNN-RNN** architecture to forecast daily customer volume for **829** Japanese restaurants for **1.5 months** in advance.
- Used **Pandas** to engineer **time-series data** to draw correlation between customer visits and reservations for **data preprocessing**
- Improved the prediction accuracy from **56% to 87%** by adding weather, latitude, and longitude exogenous variable and fine-tuning the parameters of neural net

Diabetic Risk Predictor, Deep Health Hackathon

2017

- An **android application** which predicts the risk of diabetes based on the patient input data
- Engineered **data visualizations** for feature selection and trained **random forests** to predict the chances of diabetes with **92%** accuracy

AWARDS

Deep Health Hackathon, Univeristy of Toronto, *Winner*

2017

Diabetic Risk Predictor-Machine Learning App

Waterloo Engineering Competition, *Runners-up*

2017

Autonomous arduino

SKILLS

LANGUAGES: Python, Java, C++, Android

DATABASES: MySQL, MongoDB, AWS, SQLite, SQL Server 2016

OTHER IDES AND LIBRARIES: Android Studio, Eclipse, Django, Anaconda, Tensorflow, Keras, Pandas, Numpy, scikit-learn, matplotlib

WEB TECHNOLOGIES: JavaScript, jQuery, AJAX, JSON, XML