Christopher Ngan

chris.ngan24@gmail.com | 226-989-2139

chrisngan.com
github.com/chrisngan24

Summary

- Aspiring data scientist with analytical experience in professional and academic settings
- Experienced full-stack developer with affinity towards machine learning, data pipelines and system architecture
- Insatiable desire to learn as shown in personal projects and academic success (top 5% of class)
- Entrepreneurial leader who is looking to tackle problems involving human and societal needs

Proficiency

- Programming - JavaScript, Python, Ruby, Java, C#, HTML, CSS
- Data Tools - Statistical Inference, Pipelines (Luigi), Big Data (Hive, Pig, Spark), Image Processing, SQL, Excel, R, Matlab, Pandas
- Design - System Integration, Product Design, Solution Architect
- Tools - Agile, TDD, Version Control (git, hg), UNIX, any OS

Professional Experiences

Social Capital Fellow (Software Engineer), Premise Data
San Francisco, CA (May 2015 - Present)

- Researching and developing a data pipeline for feature extraction from images.
- Design and analysis of a method for measuring the trustworthiness of contributors. Utilized sklearn for predictive modeling and PySpark for feature engineering.
- Developed data pipelines with PySpark and Luigi for catching fraudulent activity within Premise's network of data contributors.
- Delivered on client projects including data analysis, generating visualizations and pipelining with Python and R.
- Architected and implemented system for improving accessibility of internal analytics including migrating static data into PostgreSQL and dashboarding metrics.

Data Science Intern, Facebook
Menlo Park, CA (Sept - Dec 2014)

- Applied statistical inference with Hive, Presto, Excel and R to gain insights from TB of data. Created pipelines for big data processing with Python and HiveQL. Designed dashboards and metrics to aid in strategic planning.
- Primary analyst for the underlying carousel ad unit. Analytic projects included A/B testing for iterative design, hypothesis-driven investigations for product roadmapping and performance benchmarking.

Big Data Engineer, Mortar Data
New York, NY (Jan - April 2014)

- Developed an ETL pipeline application with Luigi to migrate data to Redshift.
- Created an API with Pig for a customizable recommendation engine application to simplify optimization techniques for users; built sample recommender systems.
- Conceptualized, built and released a web solution for visualizing product recommendation results.
- Continuous release on the award winning Mortar platform with Ruby and Python.

Product Developer, Nicoya Lifesciences
Waterloo, ON (May - Aug 2013)

- Primary software developer at an early-stage lifescience startup.
- Architected and developed a sleep sensor product. Designed a Node server for signal-processing algorithm, database storage with MongoDB and server-side architecture to interface hardware sensors. Utilized Backbone and D3 for a user facing web app.
- Developed features of an Android app to use with a blood sensor product.

Mobile Developer Intern, Genesys Lab
Markham, ON (Sept - Dec 2012)

- TDD for a call administration SaaS with technologies like Backbone and D3

Junior Software Programmer, Cole Engineering Ltd.
Markham, ON (Jan - April 2012)

- Lead developer of a prototype for a sewage surveying system; designed Android solution with Google Maps Integration, MySQL storage and PHP server

Relevant Projects

RobFordTheGame.com, Hacker at HackNY
- Co-created the viral sensation which gained over 150,000 plays and international buzz.
- Responsible for technical architecture and coding of the JavaScript game

Swear Jar, Hacker at CalHacks
- Designed a virtual swear jar that punishes foul language while providing analytics on user's swearing. Won best use of PayPal.
- Head of a web app that provided visualizations and insights for swearing behaviour.

MediData, Hacker at MHacks
- Tool to provide reporting services for impoverished communities through SMS
- Worked on all layers of code at 36 hour hackathon; awarded best Use of MongoDB

Smart Kiosk, Academic Project
- Designed and developed a food ordering kiosk with a touch interface that adapts to the demographic classification of users. Winner of people's choice award.
- Headed data science development within team of 4 using Python technologies including Numpy, Scipy and OpenCV; conducted PCA for feature extraction, image processing on facial images and classification of user's age and gender.

Fridge Mate, Academic Project
- Designed and prototyped a fridge magnet for automating inventory management of food in a fridge. Utilized image processing for classification of fruits.
- Full stack development of Flask server, data pipeline and integration with Raspberry Pi

Communitech DATA.BASE Challenge, Entrepreneur
- Designed a product to promote healthy eating habits and cooking skills
- Was awarded first place in all of Ontario

Yummy Recs, Personal Project
- Designed and implemented an analytical experiment, including web crawlers and recommender systems built on Mortar with Pig, to validate recipe recommendations

Personal Website, Personal Project
- Hand-coded personal website to showcase projects.
- Developed with Jekyll and Bootstrap.

Education

Expected Bachelor of Applied Science - System Design Engineering, University of Waterloo (Class of 2016)

- Cumulative average of 90.28%.
- Consistently ranked within top 5% of class. Recipient of Dean's Honour List every academic term.
- Relevant courses include programming, data strucutres and algorithms, signal processing, pattern recognition, regression analysis and engineering design.
- Intent to specialize in statistics during final year of academic studies.

Awards

- Dean's Honours List (awarded **every** academic term)
- NSERC Undergraduate Student Research Award
- 1st Place (Communitech's Database Challenge 2014)
- Best Use of PayPal (Calhacks 2014)
- Best Use of MongoDB (MHacks 2013)

Interests

- **Music**: plays guitar, piano, drums and spoons (utensil)
- **Food**: be a chef is plan B
- **Film**: aspiring film snob
- **Vim**: <3