

# Corey Auger

North Vancouver, BC  
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Willing to relocate: Anywhere

## WORK EXPERIENCE

### Researcher

daytrader.ai - Vancouver, BC -

January 2018 to Present

This is a personal research project to experiment with machine learning and the stock market. All data and algorithms are shared. You can find out more information on my blog: <https://medium.com/@coreyauger>

### CTO

Nextwave Software Inc. - Vancouver, BC -

August 2013 to Present

- Distributed system engineer
- Worked in Scala creating a Akka cluster running on top of Kafka.
- Worked with Apache Spark and Apache Flink.
- Machine learning infrastructure.
- NLP parts of speech tagging.
- Cassandra and Titan graph database backend.
- Web and mobile front and built with Preact, redux, RxJs

### CTO

PlayQuest Interactive Inc. - Vancouver, BC -

July 2010 to August 2013

- Peep to peer video encoding network.
- Created mobile streaming application
- Web Application
- Social interactions with video games.

### Director of Engineering

AfterCAD - Vancouver, BC -

July 2010 to January 2012

-Worked with complex CAD file formats (DWG,DGN) using openGL to extract geometric data and produce "smart raster data" (ALR file format) (see patent application 20090309893 )

- Developed application for the conversion of DWG, DGN, DWF to our patented raster storage system (ALR files) and CAD-XML.
- Created system for 3D data visualization in the cloud. (see patent application 20100045662 )
- Developed application pipeline for 3d file format conversion. ----Converted complex proprietary 3d formats (DWG,DGN,DXF) to open source Callada file format including asset and texture management.
- Developed game engine for the fast display, efficient swap and maximization of video memory for SaaS display architecture.
- Created architecture behind SaaS system allowing for the upload conversion display and markup of 2D and 3D geometry.
- Developed web service and load balancing architecture responding to adaptive job sizes and product service levels (eg: Gold member should get faster access then bronze member).
- Developed real-time collaboration strategy for team viewing of 2d 3d applications.
- Instituted framework for browser based geo-positioning of buildings. Created tile and polygon data generation for google maps.
- Orchestrated realtime low level Screen Capture of games (Direct3d and OpenGL dll injection technique)
- Have completed extensive work with capture encoding and streaming of real-time media.
- Developed realtime content delivery strategies using P2P networking.

## EDUCATION

### **BSc in Computer Science**

University of Calgary - Calgary, AB

September 1997 to April 2005

## SKILLS

Machine Learning, Scala, Javascript/typescript, Python, C++, Mysql, Cassandra, Neo4J, Titan, OpenGL, Direct Show, Linux, C#, Functional Programming, Postgres, Akka, Kafka, TensorFlow, Keras, DI4J, Elastic Search

## LINKS

<https://github.com/coreyauger>

<https://twitter.com/coreyauger>

<https://www.linkedin.com/in/coreyauger/>

## CERTIFICATIONS/LICENCES

### **Convolutional Neural Networks**

February 2018 to Present

### **Deep Learning Specialization**

February 2018 to Present

## **Sequence Models**

February 2018 to Present

## **Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization**

January 2018 to Present

## **Structuring Machine Learning Projects**

January 2018 to Present

## **Neural Networks and Deep Learning**

December 2017 to Present

## **Parallel programming**

August 2016 to Present

## **Functional Program Design in Scala**

July 2016 to Present

## **Functional Programming Principles in Scala**

July 2016 to Present

## **Machine Learning: Classification**

April 2016 to Present

## **Machine Learning: Regression**

January 2016 to Present

## **Machine Learning Foundations: A Case Study Approach**

November 2015 to Present

## **Text Mining and Analytics**

July 2015 to Present

## **Introduction to Big Data with Apache Spark**

July 2015 to Present

## **Cluster Analysis in Data Mining**

June 2015 to Present

## **Text Retrieval and Search Engines**

April 2015 to Present

**Pattern Discovery in Data Mining**

March 2015 to Present

**Machine Learning**

September 2014 to Present

**Principles of Reactive Programming**

December 2013 to Present

**Functional Programming Principles in Scala**

November 2013 to Present

**Apache Spark: An Introductory Workshop for Developers**

**Professional Certificate for Text Mining & Analytics**

**Verified Certificate for Introduction to Apache Spark**

**Verified Certificate for Introduction to Functional Programming**

**Verified Certificate for Scalable Machine Learning**

**Mathematics for Machine Learning: Linear Algebra**

January 2018 to Present

**Mathematics for Machine Learning: Multivariate Calculus**

February 2018 to Present

**Mathematics for Machine Learning: PCA**

March 2018 to Present

**Mathematics for Machine Learning Specialization**

April 2018 to Present

**PATENTS**

**METHOD AND SYSTEM FOR DISPLAYING AND COMMUNICATING COMPLEX GRAPHICS FILE INFORMATION (#20090309893)**

December 2009

A method and system is disclosed which permits anyone with a web browser to view, zoom, markup, and edit CAD files without special software tools. This is accomplished by calculating

and serving rasterized files in a format such as portable network graphic files that are readily viewed by a client using standard browser software.

## **METHOD AND SYSTEM FOR INTERACTIVE ONLINE AUDIENCE PARTICIPATION IN MULTICAST GAMING (#61/765755)**

### **Method and System for delivering and interactively displaying three-dimensional graphics (#20100045662)**

February 2010

A method is provided whereby the user can view and interact with live, realtime 3D content using just a web browser, requiring no extra downloads or third party 3D plugins. The invention uses W3C standard bitmap formats, typically JPEG or PNG, as the delivery vehicle for server side rendered 3D content. The invention provides a 3D rendering application that runs on a web server and responds to commands from the user's web browser to manipulate, re-render and deliver new 3D rendered scenes back to the users' browser. The invention preferably uses Ajax—Asynchronous Javascript and XML to create the client side Web 3D scene manipulation tool set.

## **METHOD AND SYSTEM FOR GENERATING BUSINESS REFERRALS FROM CHAT DISCUSSION GROUPS (#10946628)**

### **VISUAL MESSAGING METHOD AND SYSTEM (#62/263446)**

PUBLICATIONS

## **METHOD AND SYSTEM FOR GENERATING BUSINESS REFERRALS FROM CHAT DISCUSSION GROUPS**

March 2014

### **Research Blog**

<https://medium.com/@coreyauger/>

April 2018

Machine learning applied to the stock market.