Yaokun Lin
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Computer Skills:
Front-end: JavaScript/TypeScript, React, Angular, HTML, CSS, Bootstrap, Material UI
Back-end: Python, Node.js, Express, PHP
Database & Others: SQL server MongoDB, Firebase/Firestore, Git/GitHub, Docker, VB (VBA, VB.Net), Matlab, R

Education

Completed Computer Science MSc. Course Deep Learning, University of Texas at Austin, GPA:3.67/4.0, part-time online	2021
BSc. Specialized in Mathematics, University of Alberta, GPA:4.0/4.0	Dec 2014

Academic Awards

Received Leo Moser 10K Gold Medal in Mathematical and Statistical Sciences (the Highest Academic Standing)	May 2015
Murray Thomas Gibson Memorial Scholarship in Mathematics (for the Honors Math Program)	Sept 2011
University of Alberta Undergraduate Scholarship + Thorleif M Fostvedt Scholarship in Mathematics	Sept 2012
Thorleif M Fostvedt Scholarship in Mathematics	Sept 2013
Dean's Honor Roll	2011 – 2014

WORK EXPERIENCE

Full Stack Engineer   Jan 2021 - Present
Aon PathWise Software Consulting Canada
Project 1: Web Development
- Built front end features using React TypeScript and Material UI, Formik and other NPM libraries according to the Figma design
- Created standard/custom React hooks and implemented code to manage global states
- Built back-end RESTful API end points and middleware in Node JS Express Framework
- Implemented CRUD operations to read, create, update and delete data from NoSQL database on Google Cloud Firebase
- Implemented user authorization (stateless) with JSON Web Token JWT
- Implemented unit tests using Jest and puppeteer
- Collaborated with team in Git version control

Project 2: Machine Learning
- Regression and classification supervised including artificial neural networks, random forest and gradient boosting machine
- unsupervised clustering K-Means, Hierarchical, Gaussian Mixtures PCA
- Natural Language Processing NLP

Project 3: Data modeling and analytics
- Developed analytical tools in Python for data-driven decision makings and multi-billion asset portfolio management
- Automated and streamline various manual and scheduled processes for internal teams
- Scientific calculations using Python Pandas, Numpy & Parallel processing; database in SQL server

Quantitative Finance Developer   Sept 2017 - Dec 2020
WCB Alberta → Government of Alberta
- Internal actuarial software developments with a team of actuaries and developers
- Actuarial software engineering Visual Basic (VB.Net)
- Built large-scale database using MS SQL server
- Software UAT and model back-testing
- Internal investment risk software engineering in C#
- Automated the entire trade planning process at the government using Visual Basic

CODING PROJECTS

Artificial Neural Networks from Scratch (MNIST)	Backpropagation	Stochastic Gradient Decent	Nov 2020
Repo	

Full Stack Chat App	Socket.io	React	Node.js	Express	Front End Deployed on Netlify	Back End on Heroku	April 2021
Frontend Backend Repo Video Demo	

Apply Various Natural Language Processing NLP Classifiers to Classify News Paper Articles, scikit-learn & Python	March 2021
Medium Google Colab	

Meal Finder, JavaScript	REST APIs	JSON	April 2021
Frontend Repo Video Demo	

Employee Email Application, a Java Project   April 2021
Repo   Video Demo

Kaggle Competition Actuarial Loss Prediction, a Machine Learning Competition (Python, NLP, Regression) - top 11% Globally   April 2021
Leaderboard   Knowledge Sharing

Train an EfficientNet Model in PyTorch for Medical Diagnosis, Deep Learning & Computer Vision   April 2021
Medium   Google Colab   Repo   Trained Model   Video Demo

C# Stock Price Simulator | Object Oriented Programming | GUI | Geometric Brownian Motion   May 2021
Repo   Video Demo   App

Let Machine Write New Songs for Us, Creative AI, NLP with Python TensorFlow   May 2021
Medium   Google Colab

Pokémon JSON Data API from Scratch | Node | Express | Postman | Deployed Heroku | BackEnd Web Application   May 2021
Backend1   Backend2   Repo   Video Demo

Full Stack Family To-Do's Tracker App | Python Flask | SQLAlchemy | Hosted on Heroku   May 2021
Frontend   Repo   Video Demo

Motivate Me! | Kotlin | Android Mobile App   June 2021
Repo   Video Demo

Random Number Guessing Game | Kotlin | Android Mobile App   June 2021
Repo   Video Demo:

Investment Portfolio Simulation and Optimization | Assets Allocation | Real World Dataset | Python   June 2021
Repo   Google Colab   Video Demo

Cryptos, Volume Weighed Average Price Calculator | Python, Object Oriented Design, Unit Test | Coinbase API   Nov 2021
Repo   Scratchwork   Google Colab   Video Demo

User Query Form, Frontend | React JS, React Hooks, UseReducer | Json Server   Nov 2021
Repo

Huddle Front End | React JS, Styled Components CSS   Nov 2021
Repo

Personal Website, plain HTML, CSS, JS: Oct 2020

Full Stack To-Do App | Frontend: React, Formik, Material UI, Yup | Backend: Firebase, Firestore   Dec 2021
Repo
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OTHER WORK EXPERIENCE

Contractor, VB $\xrightarrow{\text{was promoted}}$ Analyst   Jan 2016 – Aug 2017
Canadian Western Bank CWB – Treasury Department
  ∙ Various projects, Visual Basic VB for Applications programming
  ∙ Applied these applications for mathematical calculations for the bank
  ∙ Software UAT testing
  ∙ **Transited from a term contract position to a permanent position in nine months, level upgraded in one year**

Analyst, Insurance Underwriting $\xrightarrow{\text{was promoted}}$ Workforce Analytics, VB   March 2015– Jan 2016
AMA Insurance
  ∙ Actuarial analysis
  ∙ **Was promoted as Analyst, Analytics in November 2015**
  ∙ Researched and developed various statistical models, performed time-series forecasting on call center phone call volumes
  ∙ Visual Basic VB for Applications programming

Research Assistant / Matlab Programming   June 2014–Aug 2014

Alberta School of Business
- On Merton's model, default distance (credit risk, corporate finance)

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EXTRACURRICULAR
Mathematical Research Assistant / VBA Programming
University Department of Mathematics and Statistics   January 2015-March 2015
- VBA solutions for automatic files creation, data collection and modification on 200+ Excel files.
- Was mentioned in the acknowledgement section of a published finance academic paper