Nicolas Ong

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Experience

Natural Language Laboratory @ SFU | Burnaby, BC *2023 – 2024*

Research Assistant

- Worked on an Entity Linking research project supervised by Professor Anoop Sarkar and his PhD student Hassan
- Read entity linking papers and reproduced their results using their public repositories and models
- Conducted follow up experiments on the reproduced entity linking methods
- Wrote and published a paper (*Unified Examination of Entity Linking in Absence of Candidate Sets*) in NAACL 2024

Redmane Technology LLC | Vancouver, BC *2021 – 2023*

Software Developer

- Delivered case management software by coordinating with the product team, and operations team, and the client
- Collaboration in agile development teams done using software such as JIRA, Teams, and GitHub
- Built Redmane Canada's first live interface using the Azure ecosystem and REST APIs, saving the client 1000 hours per year of manual data transfer between our system and theirs
- Used C#, .NET, and related libraries to implement client requirements for their software solution
- Used Transact-SQL scripts and queries into the database to automate development work, investigate potential issues, and solve identified problems
- Led design sessions with clients to determine their organizational needs and how we can solve them
- Trained clients to use our software, ensuring them a smooth transition for their organization to our solution

Education

University of Alberta | Edmonton, AB *2024 – Expected 2026*

Candidate, MSc of Computing Science | Enrolled in the Master of Science (Thesis) in Computing Science program

Simon Fraser University | Vancouver, BC *2018 – 2021*

Bachelor of Science (with Distinction) in Computer Science, GPA 3.8

- Awarded President's/Dean's Honor Roll and scholarships for excellence in grades
- Used application-level programming in networking assignments, like a blockchain protocol simulator
- Learned programming paradigms - functional, concurrent, and distributed - with Haskell, Go, and Erlang
- Wrote machine learning algorithms like entropy-minimizing random forests and k-modes clustering
- Created a Quantum Program Simulator to run any quantum program (sequence of gates) the user writes

Projects

Social Media Website | tree-ter *2019*

A social media website whose page organization is based on the "tree" data structure.

- Became a full-stack web developer – learned node.js/PostgreSQL for the server-side framework, and JavaScript/HTML/CSS for the client-side
- Deployed with cloud services such as Amazon's AWS (S3 for image hosting; SES for confirmation emails), and Heroku (Platform for node.js app hosting; Postgres for database hosting)

Data Science and Machine Learning | Hotel Analysis *2020*

- Extracted relevant information from big data (OpenStreetMap dataset) using Spark and Hadoop on SFU's compute cluster
- Feature engineering with Pandas and Numpy, training and optimization with scitkit-learn (Random Forest, Pipelines, and Grid Search), visualization with Plotly

Video Game | Asteroid Eater *2020*

A video game where the player controls a spaceship, and eats asteroids to grow. The ship can slice asteroids in parts.

- Written in Lua using the LOVE2D framework and Box2D for the physics engine
- Created procedurally generated asteroids and asteroid fields using Perlin noise

Android Application | itemRanker *2019*

An Android app where users rank items and create "tier lists". Features a Versus Mode where users sort items through comparisons.

- Developed in the Android Studio environment and released to the Google Play Store
- Designed the application using Java for the model and controller, XML for the view, and SQLite for the item database