VICTOR SHAN

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EXPERIENCE

Research Assistant at MISL Lab
UW Molecular Information Systems Lab

📅 July 2020-present 📍 Seattle, WA

- Modelling DNA storage process from synthesis to sequencing
- Applying models to optimize process for accuracy and lower cost

iGEM (International Genetically Engineered Machine)
University of Washington

📅 Apr 2020-Present 📍 Seattle, WA

- Developing a website using React and Firebase to present the project
- Set up CI/CD to check pull requests and page deployment
- Modelling the harmful metal de-accumulation process in the human body using scipy, matplotlib and numpy

FIRST Robotics Competition
Roosevelt High School's Iron Riders

📅 2015-2016, 2017-2019 📍 Seattle, WA

- Led Image Recognition Subteam
- Developed image recognition to process images and determine robot's location from target
- Taught basic computer programming in Java to new members

Intercollegiate Rocket Engineering Competition
North Seattle College Team

📅 September 2017 – June 2019 📍 Seattle, WA

- Lead the Electronics Bay subteam 2018-2019 competition
- Repaired old electronics bay for rocket telemetry and deployment
- Researched and setup various parts for integration into electronic bay

PROJECTS

Tic Tac Toe
- Implemented cloud NoSQL database and authentication
- Constructed horizontally scaleable Node.js/Google Cloud Functions backend that could scale to millions of users

University of Washington Campus Map
- Processed CSV file for Graph construction
- Found shortest path using Dijkstra's Algorithm
- Server side route processing with REST API
- Deployed React Front-end with Spark Java backend on Heroku

Naive Bayes Spam Filter
- Implemented Naive Bayes algorithm to train and classify spam emails
- Optimized with multi-threaded training and classification

Indexed File Server
- Crawled through directories indexing files contents
- Searched directory using terms and get most relevant matches

COURSES

University of Washington
Paul G. Allen School of Computer Science

📅 9/2019 - 6/2023 📍 Seattle, WA

GPA: 3.56
- Software Design and Implementation
- Data Structures and Parallelism
- Web Programming
- Systems Programming
- Intro to Database Management
- Foundations of Computing I & II
- Hardware/Software Interface

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North Seattle College
Associate of Science (Mech. Eng. Transfer Degree)

📅 9/2017-8/2019 📍 Seattle, WA

GPA: 3.98
- Linear Algebra
- Vector Calculus
- Engineering Statics
- Mechanics of Materials
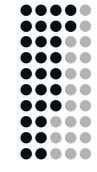- Engineering Dynamics

PROGRAMMING SKILLS

Skill	Level
Java	●●●●○
JavaScript	●●●●○
SQL and NoSQL	●●●○○
C++	●●●○○
Git	●●●○○
CSS	●●●○○
Linux Environment	●●●○○
Python	●●○○○
Latex & Markdown	●●○○○
VBA	●●○○○

TECHNICAL SKILLS

Problem Solving   Logical Reasoning
Probability   React   Node.js

CERTIFICATES

2017-2023   CompTIA A+ Certificate