

Taren Gorman

tarengorman@gmail.com
425-876-3095

tarengorman.com
github.com/TarenGorman

Education

University of Washington
BS Applied Physics
Graduation: June 2017

Work Experience

Research Assistant: Kutz Research Group

June – January 2018

Used Python to explore Sparse Identification of Nonlinear Dynamics (SINDy algorithm) with real-time Inertial Measurement Unit (IMU) data over Bluetooth.

Involved the use of custom Python libraries and common frameworks such as: Pandas, scipy, numpy, sklearn, plotly, jupyter notebook, and git version control.

Developed extensive knowledge of machine learning working alongside a talented graduate research group developing reduced order modeling and neural nets.

Student Mentor: CoMotion UW

March – June 2017

Assisted fellow students on engineering projects in the makerspace, while emphasizing safety and a collaborative atmosphere.

Explored the use of 3D-Printer, Laser cutter and AR/VR devices for development purposes. Used: Rhino CAD, Arduino, Unity3D and JavaScript Three.js.

Production & Inventory: Ocean Beauty Seafoods

June 2012 – 2016 (Summers)

Proactively sought multiple roles and training, including: production line lead, inventory, packaging, receiving product, forklift certification, truck route assistant.

Processed and moved a large volume of products for distribution in the greater Seattle area, with 50+ hours/week at periods of high demand alongside a diverse crew.

Interests

3D Modeling, VR/AR, Skiing, Soccer, Tennis, Lifting, Surfing, Biking, Cooking, and Sci-Fi books.

Programming Projects

Automated Cryptocurrency Trader

November – Present

Duo programming project with a colleague using Python and git version control. Trained a recursive neural net architecture on a market environment built from the past year of market data.

Created a full pipeline to create, save, and deploy trained models on live trading exchange.

Personal Website: Portfolio

December – January 2018

Designed entire website using React.js and Node.js at the core, with CSS and HTML elements. Deployed on AWS S3 instance.

Embedded Three.js for graphic effects. Used Blender to create 3D models.

Matrix Parallelization

March – June 2017

Series of coding projects to parallelize and explore data structures for a C++ matrix implementation library.

Involved use of OpenMP, threading, and atomic operations. Timed FLOP performance for implementations.

Photon Fighter Game

January 2017

Composed a 6-person team of random programmers of varying skill to develop a game in 48 hours (Global Game Jam).

Personally responsible for level design and C# scripting of object transforms. Additionally, for combining all scripts per development version benchmark.

Skills

Proficient in: Python, JavaScript, Three.js, React.js, HTML, CSS, GIT, Unity3D, Blender, Linux

Familiar with: C++, C#, MATLAB, SQL, Arduino, Unreal Engine 4, MakerBot, Rhino, Microsoft Office Suite

Relevant Coursework

High-Performance Computing (483)
Scientific Computing (481)
Computational Methods for Data Analysis (482)
Data Science and Societies (491)
Computer Programming I-II (142-143)
Electrodynamics (321-323)
Digital Circuits (335)
Analog Circuits (334)
Optics (331)
Experimental Physics (231)
Machine-Learning (AZ)