JAMES R LOWREY

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WORK EXPERIENCE

Software Engineer: *Port of Seattle, Seattle WA*   **May 2019-Present**
- Port's lead dev on joint MSFT project that uses ML to audit idling plane carbon emissions at the airport
- Lead dev for multimillion dollar Angular/Entity Framework/WinSvc project (Nexus) for internal project management
  - ❏ Refactored all forms: improved logging, features, and reduced bugs. Consulted on solution in future projects
  - ❏ Improved story creation workflow: reduced QA turnaround and back/forth with business
  - ❏ Led iteration review, iteration planning meetings and demoed new work to customers and shareholders
  - ❏ In reviews, delivered stories much faster than anticipated

Software Engineer: *Epic Systems, Madison WI*   *June 2016-January 2017*
- Prototyped C# server migration (from VB) of Anesthesia Intra-op display grid. Maintained JS front end and Mumps DB code
- Participated in daily SCRUM, Agile practices, weekly triage. Hunted bugs from general QA Notes in .Net/JS web application.

Intern   ◦Baker Huges (May-Aug '14): Pioneered TDD for C# backups. Learned Agile iterations. Implemented web wireframes
Intern   ◦NetApp (May-Aug '15): Created network interface in ONTAP OS with C, GDB, packet analysis (Wireshark)
TA   ◦OSU ('13): Teaching assistant, Graded and tutored graph theory and algorithm analysis 12 hrs/wk
Research ◦OSU ('12): Studied E2F & liver cancer. Utilized mice, genetic testing, and big data genomes. Volunteered 20hrs/wk

EDUCATION

Georgia Institute Technology (GT): Master's CompSci, specialization Machine Learning   *January 2017-December 2019*
ML, RL, CV, KBAI, Robotics AI, Data&Viz Analytics, Arch&Design, DBs, InfoSec, Algs   *GPA: 3.5*
Ohio State University (OSU): Cum Laude, Honors BS CompSci Eng, Bio Minor, Premed   *August 2012-December 2015*
Study Abroad: Literature and Culture of London: Shakespeare's London   *GPA: 3.66 (Major 3.7)*

OTHER PROJECTS

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Javascript   ◦WFPB '19*: Website for nutrition education. React/Redux/Victory.js client.
Serverless backend built for payment processing uses Express/Stripe/AWS-Lambda server
◦CorkboardIt '19: social media website via React/Express with raw SQL queries for OMSCS class
◦Birdu '17*: Hybrid Cordova app built with Phaser.io published on Android. Also released FOSS plugins for Phaser Engine

Data Science ◦Reinforcement Learning '18*: Implemented a DQN agent to solve OpenAI Gym's CartPole + Lunar Lander (Python)
(Python)   ◦Data Mining '17*: Cleaned >60k Reuter's news articles with Sci-Kit. Compared KNN/decision tree, K-means/DB-Scan, and
applied minwise hashing to document similarity metrics.
◦Otto Classification '17: Compared SVM, EM, and Naive Bayes models for analyzing sparse Otto product dataset

Python   ◦CV '18*: Analyzed media for geometry, corners, motion, tracking, detection, and recognition (OpenCV, Tensorflow)
◦AI4R '18*: Localized and tracked robot in simulation via Kalman+Particle filters and SLAM
◦rePAWster '16*: Bot to search Reddit (via PRAW) and repost the best pet photos. Deployed via Linux on DigitalOcean

Ruby   ◦bonktothefinish.com '19* - Developed and maintain running blog for my wife (Middleman)
◦SWAPI '18*: Rails 5.2, Webpacker, React, PostGreSQL for fetching, caching, and displaying data from SWAPI
◦RateMyProf '16: Cloned in undergrad. Lead dev, tester, documenter in group of 5. Rails 4, jQuery
◦UACT '15*: volunteered to develop, design and publish Rails 4 full stack site for displaying high school plays

Godot   ◦GoBlaster '21*: Bullet Hell 2D game with high numbers of onscreen entities and proc-gen enemy spawning :
https://store.steampowered.com/app/1638930/GoBlaster/
◦GodotWeapons '19*: Created FOSS plugin with elegant, widely compatible API for weapons logic management: 59☆
◦GodotLightning '19*: Created FOSS Plugin to procedurally generate a lightning effect out of Line2D: 13☆

Android   ◦JASIG '16*: SHMUP 2D game with custom-built game engine for many entities, store, app flow.
◦FunGroups '15*: Display Organic Chemistry info through flash cards and interactive quiz, stored in SQLite
◦CrashBoomBop '14*: 2D game using Android, SQLite, and accelerometer to process and grade user reaction time

*Indicates an individual project