Dat Do

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EDUCATION

B.S. in Computer Science | Sep 2019 – Dec 2021
University of Washington, Paul G. Allen School | Seattle, WA
Direct Admit to Major
2019-2020 Courses: Data Structures & Parallelism, Systems
Programming (C/C++), Foundations of Computing, and more.

Associate of Arts & Sciences | Sep 2017 – Jun 2019
Bellevue College | Bellevue, WA
Academic Concentration in Mathematics
Completed Courses: Calculus I-IV, Linear Algebra,
Fundamentals of Computer Science I-II, and more.

EXPERIENCE

High School Software Engineering Intern | *Microsoft, Data + AI – Visual Studio*   Jun 2019 – Sep 2019
- Worked on the Data + AI Team under Visual Studio Dev Tools. Launched and maintained a machine learning contest platform, empowering developers and data scientists alike to cooperate and solve problems through building models.
- Engineered CI/CD to automate our team's process of going from new commits in the source code to live production, eliminating upwards to 90% of the initial manual overhead involving dev environment setup and testing.
- Learned to utilize Azure cloud services (DevOps, Pipelines, Resources, etc.), leverage open-source, and commit quality code.

IT Service Desk Agent | *Bellevue College IT Services*   Mar 2019 – Jun 2019
- Assisted students, faculty, and administrative staff in resolving various technology-related problems including but not limited to: remote access services, Canvas Learning Management System, and software/hardware troubleshooting.

Student Government Treasurer | *Bellevue College Student Programs*   Sep 2018 – Jun 2019
- Held responsibility for the overall administration of the Associated Student Government budget with over $500,000 from four different budget accounts, enabling clubs/programs to operate and grow in and outside of the college.
- Led meetings as Chair of the S&A Fee Committee to review/approve funding requests based on needs and available budget.

Machine Learning Intern | *Port of Seattle & Sea-Tac Airport*   Jul 2018 – Sep 2018
- Actively contributed to the Air Cargo Computer Vision prototype in implementing a COCO-trained model over cargo and aircraft images at Sea-Tac Airport. Security cameras are then implemented to detect the cargo and aircrafts on the airfield, ensuring proper operations.
- Defined and implemented a Facial Detection and Recognition system to further enhance skills/knowledge of computer vision, a Convolutional Neural Network to classify handwritten digits, and an NLTK model to perform text sentiment analysis on Twitter tweets. Primarily utilized Python, PyTorch, OpenCV, amongst many other Data Science libraries.

PROJECTS – More at *datddo.com*

Dynamic Memory Allocator | *Collaborative*   Dec 2019
- Wrote a dynamic storage allocator for C programs (i.e. malloc and free routines) using a doubly-linked explicit free list.
- Implemented primarily in C while examining how algorithm choice impacts tradeoffs between utilization and throughput.

Python Code Completion Model | *Microsoft OneWeek Hackathon*   Jul 2019
- Built a contest-winning Seq2Seq Frequency Model to predict Python code based on 2,000 top-starred GitHub repos.
- Implemented primarily in Python while also utilizing basic Tree and Dictionary data structures.

PathFinding Visualization | *Personal*   Mar 2019
- Find the shortest path from a 'starting' cell to an 'exit' cell using the Breadth-First Search (BFS) algorithm.
- Implemented with JavaScript, HTML/CSS, jQuery, and BFS algorithm. Check it out at *datddo.com/pathfind.php*

Facial Detection & Recognition | *Collaborative*   Jul 2018
- Computer vision model that detects and recognizes real-life human faces. A neat implementation to this is that it collects and trains on the data almost instantaneously.
- Implemented primarily with Python and OpenCV.

Wizard Top-Down Shooting Game | *Personal*   Jun 2018
- Created a simple 2D game as a starting step towards programming.
- Implemented primarily in Java following OOP principles and utilizing Swing to create an interactive GUI.