Amay Bansal

Computer Science Student @ University of Washington

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EDUCATION

University of Washington, BS/MS Computer Science ***Sep 2021 – Dec 2023 (BS) – June 2024 (MS)***

- **Coursework**: Intermediate Microeconomics, Quantum Computing, Quantitative Statistics, Computational Biology, Machine Learning, Probability/Statistics, Distributed Systems, Advanced Data Structures, Discrete Math, C++ Systems Programming, SQL Databases
- **GPA:** 3.8/4.0

Bellevue College, Running Start ***September 2020 – June 2021***

- **Coursework:** Data Structures in Java, Linear Algebra, Intro to Web Development, Physics 1 and 2, Microeconomics, Calculus 3 and 4, Differential Equations
- **GPA**: 4.0/4.0

EXPERIENCE

McLean Periodontics Research Lab */ Data Science Research Assistant* ***January 2023 – Present***

- Developed pipelines using Nextflow for 16S sequencing to read single cell genomics data
- Used R/Python to build predictive models to classify patients into responder types for periodontitis
- Created project proposals to create a clinical trial on pregnancy induced gingivitis

Arista Networks */ SWE Intern (CloudVision Team)* ***June 2022 – September 2022***

- Led the design and development of 3 back-end features to improve runnability and functionality of Arista switches
- Increased switch startup productivity by 25% using Golang, Docker, Kubernetes, Bash, and Git
- Communicated with cross-functional teams consisting of ~40 engineers and 20+ stakeholders to create design for back-end features
- Deployed 30+ informative metrics to monitor health, runnability, and usage of arista switches for 4000+ tenants using Prometheus and Grafana API

Institute for Systems Biology */ Computational Modeling Intern* ***June 2020 – January 2021***

- Conducted extensive research to find correlations between environmental factors and lipid production in algae biofuels to increase production of biofuels to use them as a clean alternative to fossil fuels
- Transformed 15k+ lines of real-world data into usable data using Pandas and NumPy and visualized data using Seaborn & matplotlib to analyze factors affecting algae biofuel cultivation in raceway ponds
- Led a team of 4 in the development of a website for further analysis and conclusions of our results

PROJECTS / EXTRACURRICULARS

Extracurriculars: *UW Chess Club / Husky Math Club* ***2021 – Present***

- Chess 1900 ELO – scored 4/5 in Panam intercollegiate tournament
- Scored 2nd place in Husky Math club integration bee
- Ranked 1315 on Putnam with score of 3/120

Projects: Python/SKlearn/OpenCV/Web Dev

- Developed a model that predicted opening prices of stocks based on Technical Analysis features
- Created an image identification tool that identifies player locations for a game called GraphWars
- Hackathon: built a website to streamline UW's NightRide service using multiple APIs, HTML, CSS, JS