Pamela Nguyen

254-350-3406 |cao.nn.p@gmail.com | Austin, TX
https://github.com/pcn-physics | https://pamhacks.com/ | https://www.linkedin.com/in/pam-nguyen/

EDUCATION

The University of Texas at Austin, Austin, TX December 2022
Bachelor of Science, Mathematics
Bachelor of Science, Computational Physics

- Certificate in Elements of Computing
- Certificate in Scientific Computation & Data Sciences
- Relevant Coursework: Data Structures & Algorithms, Data Mining, Databases, Discrete Math, Numerical Methods

PROJECTS

- **Senior Research Thesis** – Filtered, plotted, and correlated the effects of rDNA copy number extremities on gene expression and genomic variation of millions of C. elegans records.
- **Ensemble Classifiers Analysis on Credit Card Transactions** – Partitioned the data for cross validation using a stratified k-fold and fitted scikit-learn algorithms: AdaBoost and Random Forests, on over 140,000+ confidential credit card transactions to predict fraudulent charges. Used: Python: scikit-learn, matplotlib
- **RDBMS Hardware and Software Optimizations** – Deployed, tested, and improved the runtime of a relational database management system (RDBMS) environment on a Compute Engine instance in GCP using Postgres 13.

EXPERIENCE

Apple, Austin,TX June 2022 - Present
Specialist

- Collaborates with leads, technicians, and operations to deliver a seamless experience for customers and peers.
- Educates customers on Apple Devices (iPhone, iPad, Apple Watch, Mac) and software (iOS, MacOS) through interactive product test-runs and demonstrations

Technical Customer Support Advisor, Austin, TX March 2020 - Jan 2021

- Knowledgeable in operating and troubleshooting iOS and MacOS devices while remaining up-to-date with the latest technologies and solutions applicable to company products.

University of Texas at Austin: Molecular Biosciences, Austin, TX Jan 2019 - April 2023
Researcher and Data Analyst under Professor Elif Sarinay Cenik

- Generated and executed computational pipelines using Python (pandas, NumPy, seaborn, matplotlib), Bash, and R for parsing, visualization, statistical analysis, and other processing of data generated by NGS workflows.
- Implemented and maintained a GCP server and TACC project to upload and analyze terabytes of data.
- Produced and tested bash pipelines that converted raw sequencing data (FASTA, FASTQ) to binaries (BAM) in order to save storage and create readable variant data for analysis. This pipeline was used to convert all sequencing data in the lab.
- Improved the efficiency (~20 min per 1TB of data) and the accuracy (+8%) of the pipelines by generating test data, adjusting pipeline parameters, and increasing CPU/RAM.
- Consistently communicates with peers, professors, and researchers on implementing modern research tactics and improving accuracy of results and data.

Juni Learning, Remote May 2022 - Present
Computer Science and Mathematics Instructor, Used: Python (Keras, NumPy, SciPy, Scikit-Learn), Java, C++

SKILLS

Programming Languages: Python (NumPy, pandas, scikit-learn, matplotlib, PyTorch, SymPy, SciPy), C++, Java, Fortran 90
Tools and Platforms: Jupyter Notebooks, Bash/Unix/Linux, MATLAB, LaTex, Google Cloud Platforms, Git
Databases: SQL, Postgres, BigQuery, MongoDB, NoSQL, Excel
Laboratory: Frequency Generator, Oscilloscope, Soldering iron, OpAmps, Circuit design and Analysis