Max Boonjindasup

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kaggle maxboonjindasup ⚑ Portfolio in max-boonjindasup

Education

Bachelor of Science, *University of California San Diego*
09/2014 – 06/2018 | La Jolla, US
Cognitive Science (Machine Learning & Neural Computation)
Biochemistry

Relevant Experience

Manager, *Beverly Hills Arthritis Associates*
11/2021 – 11/2022 | Beverly Hills, CA

- **Automated data cleaning and analysis** of accounting ledger using *Excel* and *Python* scripts to **identify unpaid accounts, recovering $100,000 in profit**.
- Reviewed claims, referrals, medication usage, and office visits to **model trends in treatment costs, providing monthly revenue estimates and insights into improving patient churn reduction**.
- Led a team **to analyze claims, document data in Epic EHR**, and manage +120 med-legal cases.

Research Associate II, *Smidt Heart Institute, Cedars-Sinai*
03/2021 – 10/2021 | Los Angeles, CA

- Implemented 3 *Excel* templates to **automate data collection and analysis, improving efficiency and accuracy by an estimated 20%**.
- Leveraged statistical modeling to analyze complex datasets for gene expression and protein concentration determination.
- Researched the interplay between extracellular vesicles, macrophages, and T-cells in muscle regeneration.

Associate Scientist, *Amgen*
07/2019 – 01/2021 | Thousand Oaks, CA

- Prototyped an **end-to-end system that seamlessly automates Amgen's workflow** to accelerate precise data capture, rigorous analysis, and comprehensive reporting for diverse projects, **culminating in a company-wide presentation and project lead role.**
- Oversaw the development of 9 drugs from discovery to FDA approval and eventual market release.

Certificates

Google Advanced Data Analytics | IBM Data Science

Data Science in Healthcare

Skills

- Languages: Python, SQL, R, Excel, Git, Matlab
- Tools: BigQuery, Tableau, Power BI, OpenCV, Docker
- Modeling: Regression, Classification, Neural Networks, Random Forest, PCA
- Statistics: Hypothesis Testing, A/B Testing, Multivariate Analysis

Projects

Skin Cancer Detector

- Built a skin lesion model (*CNN - 95% recall and F1 score*) using *Python, OpenCV, & Tensorflow* that **classifies 7 cancer types** based on clinical images of skin cancer patients.
- Identified trends and outliers in healthcare data by leveraging the CNN model to **enhance accurate patient outcome projections and revenue estimations**.
- Deployed the model on a **website to accept photos and help identify malignant lesions**.

Predicting Employee Retention 🔗

- Created an **employee attrition model** (*XGBoost - 98% accuracy and precision*) using *Python* that identified 5 key factors for improving employee tenure, **leading to a projected 20% increase in resource management and employee satisfaction**.
- Conducted statistical analysis of employee departure and **identified a significant correlation between the assignment of > 4 projects and a 200% increase in employee turnover**.
- Cleaned, processed, and analyzed a 5-year employee dataset to predict employee retainment and visualize insights through *Pandas, Seaborn, & Tableau*.

Heart Disease Predictor 🔗

- Developed an **ensemble of machine learning models** (*kNN, NN, XGBoost, DT, SVM*) in *Python* to **classify heart disease** using cross-validation and *GridSearchCV* for optimization, resulting in a **neural network with nearly 100% accuracy**.
- Performed exploratory data analysis on ~900 patient samples through *NumPy, Panda, & Matplotlib* to identify patterns, handle missing/categorical data, and standardize variables.

Publications

Individual Alpha Frequency Determines the Impact of Bottom-Up Drive on Visual Processing 🔗
Stephanie Nelli, Aayushi Malpani, **Max Boonjindasup**, John T Serences, Individual Alpha Frequency Determines the Impact of Bottom-Up Drive on Visual Processing, Cerebral Cortex Communications, Volume 2, Issue 2, 2021, tgab032, https://doi.org/10.1093/texcom/tgab032

Alpha entrainment of posterior visual cortex impacts visual detection 🔗
Stephanie Nelli, **Max Boonjindasup**, Aayushi Malpani, John Serences; Alpha entrainment of posterior visual cortex impacts visual detection. Journal of Vision 2017;17(10):976.