PHU N DANG | dangnphu31@gmail.com

(669) 274-8956 | pndang.com *(personal portfolio)* **| linkedin.com/in/phungocdang | github.com/pndang**

EDUCATION

UNIVERSITY OF CALIFORNIA SAN DIEGO | GPA: 3.738 **Exp. Graduation Date: June 2025**

Data Science, BS | Real Estate & Development, BS | Urban Studies & Planning, Minor

SKILLS & ACTIVITIES

- **Tools, Frameworks, and Credentials**: LEED® Green Associate™, CoStar, CEQA, SketchUp, Python (Pandas, NumPy, SciPy, RegEx, Matplotlib, Seaborn, Dash/Plotly, Sklearn, PyTorch), R, SQL, Java, C, HTML, CSS, Jekyll, Tableau, MS Excel, MS Power BI, GitHub, VSCode, IntelliJ, Arduino, Google Colaboratory, Vietnamese Bilingual Fluency
- **Extracurricular Activities:**
  - **Etkin Scholar** at Urban Land Institute – San Diego/Tijuana
  - Previous **Research Scholar** at Semiconductor Research Corp. Research Scholars Program (PRISM Center)
  - Previous **Officer** and **Player** on UCSD Men's Club Water Polo Team ***(2022 National Champion)***
  - Previous Data Science Student Society **Workshops Committee Member** *(BI & SWE Domains)*
- **Honors/Awards**: 2x UCSD PACE Fellow Scholarships, Roosevelt College Honors Program, Provost Honors, 36th URC

EXPERIENCE

UCSD Urban Studies & Planning | Academic Department | La Jolla, CA **Sep 2023 – Present**

Affordable Housing Assistant Research Fellow

- Identify and report policy incentives and cost factors relevant to the site context, opportunities, and constraints of affordable housing projects across the United States
- Attend meetings and events with industry professionals at the Urban Land Institute to learn practical insights into the current market feasibility of affordable housing projects, with emphasis on LIHTC and ADUs
- Received departmental sponsorship to get involved and network with the San Diego Green Building Council to study state-of-the-art green building techniques and ways to integrate green building with affordable housing

Data Science Fellow **Sep 2023 – Present**

- Developed a script to retrieve and parse property data from CoStar into a tabular format for ML research purposes
- Conducted a literature review of basic to novel technical real estate data science applications, ranging from hedonic price models to neural networks
- Identified data sources across the local, city, and county levels for further analytical purposes, domains include land use, utilities, parking, transit networks, historical districts, balanced community development areas (TIF, CDBG, CIP), public health, and project-level public data

BIOKIND ANALYTICS | Healthcare Non-profit | La Jolla, CA **Sep 2022 – Present**

President & Data Analyst

- Manage organizational leadership, budget, marketing, outreach, and recruitment activities
- Collaborate with local healthcare non-profits throughout San Diego to discuss potential avenues for data science to improve insights generation, operational efficiency, impact, outreach, client satisfaction, return on investment, and systems and use case designs
- Oversee and participate in student data science projects to ensure quality, timely delivery, and meeting clients' expectations; facilitating opportunities for students to apply academic knowledge in impactful, real-world scenarios
- Collaborate with clients to analyze complex operational/financial datasets in identifying key metrics and actionable insights, leading to improved client understanding of programs, initiatives, research grants performance, and furthered clients' mission as data-driven organizations
- Organize discussions/meetings with university teaching faculty, department advisors, and non-profit representatives
- Communicate opportunities in public health and data science, including informational and engagement events, to chapter members

NIEMA LAB | Computer Science & Engineering | La Jolla, CA **Sep 2022 – Oct 2023**

Data Science Trainee & Researcher *(Mentor – Dr. Niema Moshiri)*

- Developed an interactive application to visualize Covid-19 time-series data with variant segmentation
- Programmed robust computational algorithms to dynamically smooth data upon input parameters and update graph

- Optimized app by reducing 97% of initial runtime through memoization and efficient data structure implementation
- Benchmarked data compression techniques to optimize serialization efficiency and expedite loading speed
- Wrote 7 research notebooks to uncover patterns in 30+ large-scale datasets involving 3000+ cancer patients
- Exceeded 87% accuracy across diverse evaluation metrics, in accurately predicting breast cancer recurrence status
- Analyzed disparities and data collection gaps to ensure ethical and responsible data science practices
- Implemented and assessed solutions to handle imbalanced data for reliable predictions
- Applied robust false discovery correction for reliable statistical conclusions

GOING SOLO | Business Intelligence & IT Consulting | Johannesburg, South Africa **Jun 2022 – Aug 2022**

Lead Data Analyst Intern

- Implemented a character-based word embeddings model to improve words/phrases cognition for text classification
- Developed an automated Bayesian text classifier to streamline data labeling processes
- Analyzed an S&P 500 stock/financials and developed an interactive dashboard in Tableau
- Enhanced and maintained a PM dashboard, enabling real-time progress tracking/reporting to supervisors
- Managed projects and led team communications across 7+ time zones for effective collaboration and timely delivery

➔ Exceeded internship expectations by proactively implementing an automated data labeling tool by leveraging machine learning, effectively saving significant time and resources when the initial assigned approach was brute force, setting a new standard for efficiency and problem-solving at the company.

DELOITTE Data Science Mentorship Program | Business Consulting | San Diego, CA **Feb 2022 – May 2022**

Data Science Mentee

- Utilized ARIMA models to generate employment metric forecasts and predict market behaviors due to Covid-19
- Conducted in-depth analysis to extract actionable insights using multiple linear regression, EDA, and visualization
- Collaborated closely with a mentor from Deloitte, receiving personalized guidance and support on a weekly basis
- Presented findings to an audience of Deloitte practitioners and advisors from the Halıcıoğlu Data Science Institute

➔ Assumed a leadership position within the project group, taking charge of task assignments, scheduling meetings, and cultivating a cohesive project story when our team needed leadership, fostering a positive, motivated team environment, and on-time delivery.

PROJECTS

OPUBOD - Occupancy Prediction Using Building Operation Data | Personal Project

A time-series machine learning project to discover relevant building operation metrics to predicting occupancy. Examined models include linear regression, auto-regression, and recurrent neural nets, plus statistical analyses for feature selection.

Game Recommender | Personal Project

Developed game recommender systems for (1) play prediction using collaborative filtering and (2) hours played prediction using latent-factor models with coordinate descent and gradient descent. All models and components implemented from scratch.

Solar-Powered Smart Lighting for Sustainable Living | Team Project

Built a solar-powered IoT device capable of collecting live sensor data, adjusting lighting, sending data to a MySQL database using MCU Wi-Fi with synchronous communication, and developed a data processing script to query/transform/visualize data.

Illuminating Cognizance | Personal Project

A comprehensive look into major power outages in the U.S. to assess (1) statistical relationships through exploratory analysis, hypothesis testing, data missingness assessment, and (2) predictive power using supervised machine learning models and feature engineering, built in pipelines with evaluation comprising diverse accuracy metrics and cogent assessments.

Urban Economic Determinants of Industrial Location | Personal Project

A discussion paper on the theories of industrial location, with emphasis on environmental regulations, tax incentives, and location factors influencing the decisions to locate (or relocate) by firms. Features case studies of Amazon and the SoCal wood furniture manufacturing industry, building off key points in Beer and Clower's book on local economic development.

San Jose General Plan Evaluation | Personal Project

A comprehensive review of the Envision San Jose 2040 General Plan; features a 1-on-1 interview with Mr. Pierluigi Oliverio, one of 37 Task Force members and a District 9 San Jose City Councilmember, for personal comments on the Envision process.

Ho Chi Minh City – Life by the Sidewalk | Personal Project

A survey paper on the evolution of HCM City's urban landscape over time, with in-depth chronological coverage of significant historical events and periods, lifestyle and cultural preferences, demographics, and varying approaches to urban design.

Cities Assessments | Personal Project

An analytical paper on the idea of Paris as a Rational City, and Miami as a Transnational City.