PHU N DANG | dangnphu31@gmail.com

+1 (669) 274-8956 | pndang.com *(personal portfolio)* **| linkedin.com/in/phungocdang | github.com/pndang**

PROFILE - An eager, adaptive, and thoughtful young professional with a multidisciplinary and entrepreneurial record of leadership and extracurricular activities, fostering a career synergizing technology & real estate. Possesses extensive experience in data-driven technologies, particularly statistics, machine learning, natural language processing, business intelligence, urban digitalization, IoT, data analysis/visualization/ethics. Real estate domains of interest and specialty include commercial real estate pro forma analysis, property management, mixed-use and transit-oriented development, affordable housing, and green building.

EDUCATION

UNIVERSITY OF CALIFORNIA SAN DIEGO | GPA: 3.738 **Exp. Graduation Date: June 2025**
Data Science, B.S. | Real Estate & Development, B.S. | 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/Word/Power BI, GitHub, VSCode, IntelliJ, Arduino, Thonny, Google Colaboratory, Vietnamese Bilingual Fluency
- **Extracurricular Activities**:
  - **Applied AI**, **Junior Architect**, **Software Developer** at Qualcomm Institute (Cognitive City Twins)
  - **Developing Leaders Council Member** at NAIOP San Diego (Commercial Real Estate Mentorship)
  - **Etkin Scholar, Partnership Forum Member, Real Estate/Data Science Fellow** at Urban Land Institute
  - **Real Estate Consultant** and **Designer in Residence** at World Design Capital San Diego Tijuana 2024
  - **Shadow Broker** to Mr. Colin Pancrazi in real estate deals and activities at two commercial real estate firms
  - 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**: Emerging Innovator, 2x UCSD PACE Scholarships, ERC 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; provided research team with useful empirical information in accordance with the relevant obstacles facing planners and developers
- 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 an algorithm to parse property data from CoStar into a tabular format for ML research purposes
- Applied statistics and machine learning on over 600 LIHTC projects to derive factors influencing fund allocation
- Identified data sources across the local/city/county levels for analytical purposes, domains include land use, utilities, parking, transit networks, historical districts, balanced community dev. areas (TIF, CDBG, CIP), and public health

BIOKIND ANALYTICS | Healthcare Non-profit | La Jolla, CA **Sep 2022 – Present**
President/Director & 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/ROI/data systems 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 large datasets in identifying key metrics and actionable insights, leading to improved client understanding of programs, initiatives, grants performance; furthered clients' mission as data-driven organizations
- Organize discussions/meetings with university teaching faculty, department advisors, and non-profit representatives

NIEMA LAB at UC San Diego | 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

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 with machine learning, effectively saving time and resources, setting new standards 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

➔ Took on a lead role when the team needed leadership, taking charge of task assignments, scheduling meetings, and cultivating a cohesive data story; created a positive, motivated team environment, on-time delivery, & quality assurance.

PROJECTS

H2 Hillcrest | Personal Project

A design-focused proposal for a state-of-the-art urban infill, mixed-use redevelopment project in Hillcrest, San Diego, to address housing needs, support multimodal transportation, and enhance the local economy with strategic commercial uses. Led by human-centered, climate-resilient placemaking values, with considerations for the lifestyles and culture inherent to Hillcrest.

Statistical Inference for U.S. Presidential Elections | Team Project

A detailed analysis of twelve elections for the U.S. presidency between 1976 and 2020 for a deeper understanding of their nature; analyses performed include exploratory, goodness of fit (LRTs), similarity/dissimilarity analysis of distributions, predictive (ML).

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

Performed (1) play prediction using collaborative filtering and (2) hours played prediction using latent-factor models with coordinate descent and gradient descent. All models implemented from scratch with analogous results to the Surprise library.

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 look into major power outages in the U.S. to assess statistical relationships, perform hypothesis testing, data missingness audits, and derive predictive power using ML and feature-engineering, built in pipelines with diverse accuracy metrics and evaluations.

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 wood furniture industry.

San Jose General Plan Evaluation | Personal Project

An embracive review of the Envision San Jose 2040 General Plan; features a 1-on-1 interview with a planning council member.

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.