

CHRISTOPHER DENQ

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EDUCATION

University of Pennsylvania, School of Engineering and Applied Sciences Philadelphia, PA
Graduate Certificate in Data Science March 2022

- Cumulative GPA: 4.0/4.0
- **Coursework:** Machine Learning, Big Data Analytics, Fullstack Development, Database Management, Statistics

University of Pennsylvania, College of Arts and Sciences, The Wharton School Philadelphia, PA
Bachelor of Arts in Philosophy and History of Art (Minor in Marketing) May 2021

- Major GPA: 3.7/4.0, Cumulative GPA: 3.3/4.0
- **Honors:** John C. Parker Fellowship (\$500 for statistical optimization on game theory model) 2016, 2017

SKILLS AND FRAMEWORKS

- **Big Data & Cloud:** Apache Hadoop, Spark, PySpark, Snowflake, AWS
- **Machine Learning:** SKLearn, Scipy, TensorFlow, Keras, PyTorch
- **Visualization & Analysis:** Tableau, Pandas, Numpy, Matplotlib, Seaborn, Excel/VBA, Google Sheets/Apps Script
- **Back-End Programming & Database:** Python, R, Java, PostgreSQL (SQL), MongoDB (NoSQL)
- **Front-End Server & Web Application:** HTML/CSS/JavaScript, Flask, Docker, GCP Cloud Run, Github Pages
- **Other:** Agile/Scrum, ETL, Git/Github, Google Colab, Amazon SageMaker, APIs, web scraping, Adobe Photoshop/Illustrator

SELECTED PROJECTS (More on GitHub)

Deep Learning Model: Charity Funding Predictor February 2022
Python (Pandas, SKLearn), Google Colab, TensorFlow, Machine Learning github.com/cdenq/charity-funding-success-predictor

- Cloud-based computing, machine learning project that preprocesses, trains, and evaluates 41k data points on charity funding
- Creates deep learning neural network with 3-6 layers, 10 neurons; optimized hyperparameter tuning in 500+ epochs
- Found model with over 80% accuracy within 1 iteration, 91% accuracy within 3 iterations; created 1 analysis report

Full-stack Development Web Dashboard: Market Metrics on Video Game Industry January 2022
Python, MongoDB, HTML/CSS/JavaScript github.com/cdenq/video-game-performance-scraper-and-web-dashboard

- Full-stack project that scraped market metrics on the video game industry and visualized that data on live, interactive dashboard; Python webscraping, API interaction, and direct import to generate 10,000 data points; Python cleaning and MongoDB database to complete ETL process with 5 collections; front-end dashboard generates 19 visualizations
- Created 1 report and 13 slides, presented findings to 3 Penn faculty/staff and 20+ students

RELEVANT EXPERIENCE

California State University: Northridge, College of Engineering and Computer Science Northridge, CA
Machine Learning Research Assistant November 2021 – Present

- Currently working directly with Dr. Wenchin Hsu, professor of computer science at CSUN
- Researching graduate-level machine learning material, creating 4+ class slide decks, writing 10+ Python examples to demonstrate ML concepts, assisting in general class material preparation, proofreading, documentation
- **Succeeding** in applying abstract ML and statistical material to Python code and slide decks for graduate-level course

Freelance/Volunteer Computer Science Tutor: Penn, CSUN, Code.org, Wyzant.com, Local Various
CIS121 Remote Tutor, COMP542 Tutor, Python Course Teacher, AP Computer Science Tutor September 2021 – Present

- Collectively taught computer science topics to 25+ high school, college, and adult learners for total 65+ hours ranging from coding fundamentals to advanced data structures and algorithms to machine learning topics
- **Succeeded** in adapting teaching style, clearly communicating abstract computer science concepts, mentoring students

Oasis Commissary (Non-Profit), University of Pennsylvania Philadelphia, PA
Founder and Executive Business Operations Manager September 2016 – March 2020

- Wrote grant to turn unused college dorm space into non-profit commissary, obtained vendor license from Philadelphia city
- Managed 21 staff and 2 junior managers, \$5000 bi-monthly budget, 6 marketing campaigns, 2 training programs
- **Succeeded** in serving local college dorm for 3 years: \$1300 profit (returned to University), 22k purchases, 180 unique clients

INTERESTS

Sudoku • Chess • Escape Rooms • Resource-Collection Board Games • Murder Mystery Dinner Parties