# CHRISTOPHER DENQ

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## SUMMARY

**Full-stack data scientist** with **3 years of experience** in analytics, machine learning, and data engineering. Background in AI research and art market demonstrates a focus on **user-centered design**, **self-driven curiosity**, and **diverse industry/research perspective**.

## EDUCATION

**University of Pennsylvania** | Philadelphia, PA

Post-Baccalaureate, Data Analytics — Mar 2022
Bachelor of Arts, Philosophy and Art History — May 2021
- **Courses:** Data Engineering (SQL), Full-stack Software Engineering, Data Structures/Algorithms, DevOps

**University of Illinois – Springfield** | Springfield, IL

Bachelor of Science, Mathematics — May 2023
- **Courses:** Machine Learning, Statistics, Probability, Linear Algebra, Discrete Mathematics, Multivariate Calculus

## DATA EXPERIENCE

**Data Science Intern** — Jun 2023 – Aug 2023

United States Department of Defense | Washington, DC
- Staffed to Naval Surface Warfare Center: Crane Division (NSWC Crane)
- Will create a machine learning product (NLP) that ingests and prioritizes AI research for military budgets and policy strategy

**Data Science Apprentice** — Mar 2023 – Jun 2023

Adobe Inc. | New York, NY
- Selected scholarship finalist for Adobe's Digital Academy apprenticeship; engaged in 480+ hours of instructor-led content
- Successfully completed 3 machine learning hackathons, 4 data projects, and 1 capstone project

**Data Analyst Contractor** — Sep 2021 – Mar 2023
- Total 2 years: PNC (intern), Tzu Chi Medical Foundation (contract), 2U Education (part-time), Wyzant (freelance)
- PNC: Saved $375k via data-driven recommendations on loan pipeline; created 8 dashboards for 7 departments
- Tzu Chi: Decreased patient treatment time by 25% via dashboards and data automation that streamlined office productivity
- 2U Education: Taught 210+ hours of 2U's data analytics curriculum to 35 students; created classroom analytics to monitor
- Wyzant: Tutored 65+ hours of computer science and data to 25 students; average raise of 2.7 letter grades

**Machine Learning Fellow and Researcher** — Jun 2012 – Sep 2013, Nov 2021 - Jan 2023

Cambridge University, et al. | Cambridge, England, et al.
- Total 2 years: Cambridge (post-bacc), California State University: Northridge (post-bacc), University of Florida (intern)
- Cambridge: Researched transformer interpretability: experience with raytracer, ResNet, backprop, BERT, and LLMs
- CSUN: Researched machine learning curriculum to add to a Spring 2023 graduate-level machine learning class
- UF: Researched SVM param space to detect Alzheimer's biomarkers; published paper

**Art Analyst** — Sep 2017 – Aug 2020
- Worked 3 years in art markets: most notably at Christies (intern) and Philadelphia Museum of Art (full-time)
- Christie's: Contributed to 3 sales (collection net $19.5M) and establishing "Net Art/generative art" category
- PMA: Analyzed 22+ artworks and artifacts for museum Acquisition team to add to permanent gallery

## SELECTED PROJECTS (FULL PORTFOLIO)

**Deepfake Image Classifier App** | Source — May 2023

Python: Matplotlib, Numpy, Pandas | Tensorflow: Keras | Streamlit
- Developed an EfficientNetv2 convolutional neural net to detect deepfakes (0.99 validation precision)

**Poisonous Mushroom Identifier Full-Stack App** | Source — Mar 2022

Python: Matplotlib, Numpy, Pandas, Seaborn, Flask, SQLAlchemy | Tensorflow: Keras | SQL | HTML/CSS/JS
- Developed a full-stack web-app that applies RF, SVM, LogReg to detect poisonous mushrooms (0.99 validation accuracy)

## SKILLS & FLUENCIES

- **Languages**: Python: OOP & Functional | HTML/CSS/JS | APIs | Git
- **Machine Learning**: Python: Scikit-Learn, Keras, Numpy, Scipy | Statsmodel | Tensorflow (G. Collab)
- **Analytics/Visualization**: Python: Pandas, Matplotlib, Seaborn | Tableau | Excel/VBA
- **Database, Cloud, DevOps**: SQL | NoSQL | Apache Hadoop/Spark | AWS | Python: Flask, SQLAlchemy | Streamlit
- **Domains**: Classification / Segmentation | Regression / Forecasting | NLP | Computer Vision | LLMs

## HOBBIES

Competitive Escape Rooms ("Ranked Runs") • Resource-Management Boardgames • Tabletop Roleplaying Games