

Jonathan K. Wan

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EDUCATION

Masters in Computer Science (MCIT)

August 2022 - December 2024

The University of Pennsylvania | School of Engineering and Applied Science, Philadelphia, PA

GPA: 3.80

Relevant Coursework: • *Software Development in Python & Java* • *Mathematical Foundations of Computer Science* • *Data Structures & Software Design* • *Algorithms & Computation* • *Machine Learning for Data Science*

Bachelor of Science in Psychology

August 2017 - May 2021

The University of Pittsburgh | Dietrich School of Arts and Science, Pittsburgh, PA

GPA: 3.72

Relevant Coursework: *Applied Statistical Methods, Analytical Geometry & Calculus, Research Methods*

PROFESSIONAL EXPERIENCE

Psychiatric Technician

November 2021 - Present

Hospital of the University of Pennsylvania, Philadelphia, PA

- Tracked and maintained digital medical records for 15 patients weekly using Epic, a cloud-based electronic health record system
- Collaborated with healthcare professionals to provide medical support to recovering addicts and psychiatric patients; coordinated care action plans, implemented safety protocols, and triaged patient priorities based on medical needs and staffing

Backend Software Engineer Intern

May 2023 - September 2023

FounderWay, (Remote)

- Migrated and merged legacy databases to a new production database
- Migrated a Spring Boot application from JpaRepository to utilize and interact with Azure Cosmos DB
- Implemented an Email API service and conducted comprehensive API testing to ensure the reliability of backend systems

Research Assistant

August 2020 - May 2021

University of Pittsburgh, Directed Research, Pittsburgh, PA

- Analyzed over 12,000 research articles from ProQuest databases on cultural pluralism and its effects on children's well-being
- Utilized SPSS to analyze and visualize mixed data from five years of survey responses for 5,000 low-income families
- Organized and archived relevant articles to streamline the research process using SPSS, Excel, and Dropbox

Genomics Research Student

August 2018 - May 2019

University of Pittsburgh, SEA-PHAGES Program, Pittsburgh, PA

- Researched and identified a novel bacteriophage (i.e., a bacterial virus) for the [Phage Hunters Advancing Genomic and Evolutionary Science Program](#) using bioinformatic software and databases.
- Collaborated with the [Gordonia phage Mellie](#) team to analyze and define the functionality of 76 genes within a bacteriophage by utilizing sequence alignment and statistical classifiers to annotate the 48,015 base pairs of DNA, providing valuable insights into the genetic composition of the bacteriophage

PROJECTS

Credit Card Fraud Detection using Machine Learning

October 2023 - Present

- Developed a machine learning-based credit card fraud detection model in Python with a 6.6% misclassification rate from a 2023 Kaggle dataset with over 550,000 records
- Utilized logistic regression, confusion matrices, and conducted K-Fold Cross Validation to optimize credit-card fraud detection.

Philadelphia COVID-19, Properties, and Population Analyzer

April 2023 - Present

- Read and parsed Philadelphia COVID-19 and Property values data (JSON/CSV/txt) to grab relevant data and output a cross-analysis based on user input in Java
- Leveraged N-Tier architecture, Strategy design patterns, and memoization to efficiently analyze data, including ZIP code-based population totals, per capita vaccinations, average property market values and livable areas

SKILLS

Programming Languages: Python, Java, C, C++, R, SQL, Excel

Web Development: HTML, JavaScript, SpringBoot, Microsoft Azure, PostgreSQL, DBeaver, Heroku

Other: Git, Tableau, Google BigQuery

CERTIFICATIONS

[Google Data Analytics Professional Certificate](#) - January 2023

[Data Analysis Using Python Certificate by University of Pennsylvania](#) - March 2022