

Artur Rodrigues

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EDUCATION

University of California San Diego

Sept. 2021 – June 2025

Bachelor of Science in Mathematics and Computer Science — 3.67 GPA

San Diego, CA

- Coursework: Data Structures, Algorithms, Object Oriented Programming, Computer Architecture, Machine Learning, Cryptography, Calculus, Linear Algebra, Discrete Math, Graph Theory, Probability, Statistics, Numerical Analysis, Optimization, Abstract Algebra

EXPERIENCE

Undergraduate Researcher

June 2022 – Sept. 2022

UCSD Computing for Social Good

San Diego, CA

- **Halved** batch processing time of **2 million** Reddit posts using PSAW and PRAW APIs in Python.
- Used Logistic Regression, SVM, and LSTM **machine learning models** to predict burnout and depression from social media posts with an **87%** accuracy.
- Applied **NLP techniques** (Tokenization, Stemming/Lemmatization, POS Tagging, Stop Word Removal) to enhance the quality of machine learning model training by **40%**.

Freelance Web Developer

Aug. 2023 – Sept. 2023

Video Game Coaching Service

San Diego, CA

- Used React and TailwindCSS to create a **responsive** and mobile-friendly web application for coaching service.
- Integrated third-party Calendly API for appointment bookings and payment methods.
- Utilized React's **lazy loading** and code-splitting features to improve load times by **45%**, ensuring a smooth user experience.

PROJECTS

AirBnB Listing Success Predictor | *TensorFlow, plotly, EDA, Data Visualization*

- Created dozens of insightful visuals using Matplotlib and Plotly to communicate model performance and data trends for decision-making.
- Implemented supervised learning algorithms (CNN, RNN, Regression) using scikit-learn and TensorFlow to identify 10 key success factors in AirBnB listings and predict review scores.
- Implemented data pipeline for hyperparameter tuning and feature engineering using pandas and numpy to improve model accuracy to **120%**.

Pentesting AD Home Lab | *Active Directory, Kali Linux, VMWare, Penetration Testing*

- Configured **Active Directory** domain to simulate corporate network environment for **penetration testing**.
- Used Responder and mitm6 to perform LLMNR Poisoning, SMB Relay, and Kerberoasting to gain a foothold.
- Used ldapdomaindump and BloodHound to enumerate compromised domain leading to escalation opportunities.
- Performed Pass the Password/Hash and Token Impersonation along with Mimikatz to compromise the domain.

CERTIFICATES/CERTIFICATIONS

Meta: Front-End Developer Professional Certificate, Back-End Developer Professional Certificate

TCM Security: Practical Junior Penetration Tester, Practical Ethical Hacking, Windows Privilege Escalation, Linux Privilege Escalation, Open Source Intelligence (OSINT) Fundamentals, External Pentest Playbook

MetaCTF: Placed **69th** out of 278 participating teams as a solo in First Annual TCMSecurity x MetaCTF CTF

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, C, C++, C#, MySQL, SQL Server, SQLite, HTML/CSS, R

Frameworks: React, Node.js, TailwindCSS, Flask, Django, JUnit, Jest, Swagger

Developer Tools: Linux, Git, Docker, AWS, Azure, WMWare

Libraries: TensorFlow, scikit-learn, pandas, NumPy, Matplotlib, Seaborn, plotly

Hobbies: Basketball, Volleyball, Surfing, Martial Arts, Music, Video Games, Video Editing