# Reese Burns

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## EDUCATION

**New York University** | New York, NY May, 2025
Bachelor of Arts in Computer Science | Minor in Mathematics
*Relevant Courses:* Data Structures & Algorithms, Data Management, Artificial Intelligence, Predictive Analytics, Software Engineering, Natural Language Processing, Operating Systems
*Math Courses:* Statistics, Discrete Mathematics, Linear Algebra
*Stern School of Business:* Financial Accounting, Decision Models & Analytics

## TECHNICAL SKILLS

**Data Analysis & Data Visualization:** Python (Pandas, NumPy), SQL, Excel, Tableau, R
**Data Science & Machine Learning:** Python (Scikit-Learn, TensorFlow, Matplotlib, Seaborn), Java, C, APIs
**Database Management:** SQL, SQLite, MySQL, MongoDB
**Web Development & Design:** HTML, CSS, JavaScript, Flask, Node, React, Express
**Cloud & Systems:** Docker, DigitalOcean, Linux, Unix, Git
**Business & Financial Analysis:** PowerBI, Capital Markets, financial modeling, data models

## PROJECTS

**Multi-Label Token Classification of Healthcare Documents** | Python, Bio_ClinicalBERT Feb – May 2025
- Built a clinical NLP pipeline to classify medical tokens using a fine-tuned Bio_ClinicalBERT model
- Generated and labeled synthetic clinical sentences using BIO tagging for entity recognition
- Achieved 93.1% F1 score on test data, ensuring accurate classification without manual labels

**Ocean Surface Heat Flux Analysis** | Python (Pandas, Seaborn, Cartopy) Feb – May 2025
- Generated global plots and seasonal overlays to visualize latent heat flux trends in the ocean surface
- Computed and compared regional correlations between salinity, temperature, and heat flux in ENSO years
- Interpreted spatial patterns to identify temperature as the dominant influence on latent heat flux

**NYC Bars Web-App** | Python, Docker, Flask, MongoDB, HTML, CSS Oct 2024 – Jan 2025
- Developed a full-stack, end-to-end website that manages and organizes NYC bars by various features, enhancing user exploration and discovery
- Utilized Docker containers to create a portable and scalable deployment environment
- Implemented dynamic search, filtering, and personalized recommendations to improve user experience

**Predicting Airbnb Prices in Europe** | Python (Scikit-Learn, TensorFlow, Seaborn) Nov – Dec 2024
- Conducted EDA to identify trends in listing prices based on property type, location, and amenities
- Optimized regression and deep learning models like Multi-Linear Regression, Gradient Boosting, and Deep Neural Networks to predict airbnb prices
- Visualized key insights to determine significant predictors of airbnb prices across Europe

**Obesity Rates Analysis** | Python, SQL, R August – Sept 2024
- Performed exploratory data analysis based on fast food restaurant density and obesity rates across the U.S.
- Built predictive models and data visualizations to explore potential correlations between these variables
- Utilized clustering algorithms, like PCA and K-Means, to identify underlying patterns

## EXPERIENCE

**CS Teaching Assistant** | *NYU Courant Institute of Mathematical Sciences* Jan. 2023 – May 2025
- Assistant for “Introduction to Computer Programming” and “Data Structures” courses at NYU
- Apply Python and Java to analyze and debug assignments for over 40+ students per semester
- Mentored students to build confidence and technical proficiency, fostering collaboration and teamwork

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**Marketing Analytics Intern |** *Saffron Communities***,** San Francisco, CA June 2022 – Sept. 2022
- Leveraged Excel to analyze event data to provide recommendations that support strategic decision-making
- Collaborated with clients to understand business and customer needs and deliver detail-oriented, actionable insights to optimize event planning and outreach

**NCAA DIII Athlete |** *New York University Swim & Dive***,** New York, NY Sept. 2020 – May 2022
- Managed 24+ hours weekly for training, travel, and competition alongside academic duties
- Enhanced time management, dedication, leadership, and communication skills
- Received recognition for exceptional academic performance from *Intercollegiate Athletics Advisory Committee in 2021*

## ACTIVITIES

**Clubs and Societies:** Intercollegiate Athletics Advisory Committee, The Penn Club

**Women in Tech Club Member |** *Girls Who Code, Women in Data Science* July 2023 – Present
- Collaborate on tech-driven projects, developing applications, websites, and data-driven solutions
- Attend workshops, speaker panels, and networking events focused on technical skills development, problem-solving, and leadership in tech

**Volunteer |** *New York Cares* July 2023 – Present
- Assisted adults with physical therapy exercises, ensuring effective and engaging sessions
- Provided math tutoring to children in grades 1-5, fostering a supportive educational environment

**Head Volunteer |** *USA Swimming Foundation: Make a Splash*
- Instructed underprivileged children in swimming, focusing on safety and proper technique
- Coordinated and promoted fundraising events, increasing community engagement and support