

HOLDEN TATUM



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➤ PROFESSIONAL SUMMARY

Dedicated **Biomedical Sciences** graduate with a **Data Science minor**, skilled in data analysis, visualization, and research methodologies. Passionate about applying analytical techniques across multiple disciplines. Background in data interpretation and research methodologies, with experience in applying data analysis and visualization techniques in academic research. Currently self-learning Python through an independent study course. Seeking opportunities to further develop data science expertise in a graduate program.

➤ EDUCATION

Old Dominion University | B.S. in Biomedical Sciences, Minor in Data Science

Graduated: **December 2024 | GPA: 3.66**

Achievements:

- **Magna Cum Laude**
- **Perry Honors College**
- **Dean's List:** Fall 2020, Spring 2021, Fall 2021, Spring 2022, Fall 2023, Spring 2024, Fall 2024 (Dean's Perfect Scholar)

Relevant Coursework:

- **Mathematics & Statistics:** Calculus for Life Sciences (MATH 205), Elementary Statistics (STAT 130M)
- **Data Science & Research Methods:** Intro to Information Literacy and Research for Scientists (CS 121G), Intro to Data Science (STAT 310), Foundations of Data Science (DASC 300), Impact of Technology: Elements of Data Science (BDA 200T)
- **Public Health & Epidemiology:** Infectious Disease Epidemiology (BIO 436), Health Services Research Methods (PUBH 445)
- **Ethics:** Bioethics (PHIL 345), Ethics and Data (PHIL/DASC 357E)
- **Advanced Research & Independent Study:** Methods in Immunological Research (BIO 440), Research Apprenticeship - Transportation Safety (HNRS 226), Independent Study – Survey Methodology & AI Research (DASC 497)

➤ RESEARCH EXPERIENCE

Old Dominion University – Independent Research Project (AI-Driven Survey Development & Evaluation)

Researcher, Data Analyst | 2023 – Present

- Focused on data collection, processing, and visualization for an experiment on AI-driven survey development and readability.
- Collected and processed experimental data for a study investigating AI-generated survey question readability across different prompting techniques.
- Designed data visualizations and presentation materials for a conference presentation at MAPOR 2024, showcasing key insights from the research.

➤ RESEARCH EXPERIENCE (CONTINUED)

Selected Research Projects:

- **Impact of Diphtheria Vaccination on Morbidity Rates in Maritime Regions of Southeast Asia** (BIOL 436W – Infectious Disease Epidemiology)
 - Developed a hypothetical grant proposal assessing the effectiveness of vaccination programs using longitudinal cohort analysis.
 - Conducted a literature review of peer-reviewed studies to analyze disease transmission and vaccine efficacy.
 - Applied bivariate statistical methods to assess morbidity reduction.
- **Financial Barriers to Cancer Treatment in Hampton Roads** (PUBH 445 – Health Services Research)
 - Investigated the impact of financial constraints on healthcare access and cancer treatment outcomes.
 - Utilized quantitative and qualitative data analysis to assess disparities.
 - Designed a longitudinal cohort study using regression modeling and inferential statistics.
- **LPS-Induced IFN-Gamma Response in RAW 264.7 Cells** (BIO 440 – Immunological Research)
 - Conducted ELISA and Flow Cytometry experiments to quantify immune responses in macrophage cells.
 - Analyzed the effect of Lipopolysaccharide (LPS) on interferon-gamma (IFN- γ) secretion.
 - Applied data visualization techniques to present experimental findings.

➤ TECHNICAL SKILLS

- **Biological Research Methods:** Familiar with biological research methods, including hands-on experience in laboratory settings.
- **Statistical Analysis:** Experience in applying statistical methods to interpret and draw meaningful conclusions from data sets.
- **Critical Thinking:** Adept at analyzing complex problems, identifying key issues, and developing effective solutions.
- **Data Storytelling:** Strong ability to craft compelling narratives from data insights, enhancing engagement and clarity in research communication.
- **Programming & Data Analysis:** Basic knowledge of Python, actively learning advanced applications in data science and machine learning.
- **Spatial Analysis:** Basic proficiency in ArcGIS Pro for spatial data visualization and analysis.
- **Effective Communication:** Strong verbal and written communication skills.
- **Microsoft Office:** Proficient in using Word, Excel, and PowerPoint for data analysis, reporting, and presentations.

➤ CERTIFICATES AND ONLINE COURSES

- **Mastering ArcGIS Pro 3: Maps, Layers, Projects, and Layouts** (Geospatial Training Services, LLC – 12 Hours, May 2024)
- **100 Days of Code: The Complete Python Pro Bootcamp** (Udemy - In Progress)
- **Python for Data Science and Machine Learning Bootcamp** (Udemy - In Progress)

➤ EXTRACURRICULAR AND LEADERSHIP

- **Global Health Study Abroad (Ireland)** – Old Dominion University | Spring 2024
 - Participated in an interprofessional global health study abroad program, focusing on cultural immersion, epidemiology, and healthcare delivery in underserved region.
 - Engaged in community health assessments, public health interventions, and collaborative healthcare projects with diverse professionals and local communities.
- **Volunteer Assistant Football Coach** – Fall 2024, Returning for Fall 2025
 - Assisted in coaching and mentoring high school athletes, focusing on skill development and teamwork.
 - Provided guidance and support during practices and games.

➤ WORK EXPERIENCE

- **Del Vecchios** | November 2022 - Present
 - Deliver orders, providing excellent customer service.
 - Assist with various kitchen tasks, maintaining high standards of hygiene.
- **Other Summer Jobs**
 - Summer House Apts - Pool Maintenance Technician (2022)
 - Rio's Car Wash - Sales Associate (2021)
 - Perfectly Franks - Waiter (2020)

➤ REFERENCES AVAILABLE UPON REQUEST