

Trevor Chartier

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www.trevorchartier.com | [linkedin.com/in/trevor-chartier](https://www.linkedin.com/in/trevor-chartier) | [GitHub](#) | [Google Scholar](#)

Education

Colorado State University

Expected Graduation: December 2025

B.S. in Computer Science (Machine Learning & AI Concentration)

GPA: 4.0

Minor in Data Science

- **Coursework:** Software Engineering (SCRUM), Probability Theory, Algorithms (Complexity Analysis), Linear Algebra, Linear Regression, Machine Learning, Data Structures, Microeconomics, Calculus I-III
- Founded the Fourth Paradigm Data Science & Machine Learning Club

Professional Experience

Undergraduate Machine Learning (ML) Researcher

September 2023 - Present

CSU Department of Computer Science

- Trained and tuned machine learning models using Scikit-learn, OpenCV, and Hyperopt to detect internal states from eye-gaze features with a benchmark F1 score of 0.66 for this novel task.
- Performed data engineering and cleaning with Python using Pandas and PyTrack to transform raw sensor eye-gaze data into engineered features. Applied feature significance testing to derive valuable insights into cognitive psychology from model behavior.
- Interpreted data using visualizations made with Matplotlib to give an international, award-winning presentation.

Skills

Languages: *Python, Java, MySQL, C++, JavaScript, HTML5, CSS, MATLAB, R*

Tools & Libraries: *Pandas, NumPy, Scikit-learn, Matplotlib, OpenCV, Seaborn, Git, Jupyter, REST API, Postman, JUnit*

Projects

CS314

August - December 2024

- Applied CMMI software engineering practices as SCRUM leader, including testing, peer reviews, and benchmarking, while collaborating on a team-based, semester-long project to develop a SQL-powered, backend web server.

Paw Planner | [View on GitHub](#)

July - August 2024

- Built a RESTful API service with Node.js, Express, and npm, integrating a custom MySQL database to handle user task organization for pets in response to HTTP requests.

Publications

- Using Eye Gaze to Differentiate Internal Feelings of Familiarity in Virtual Reality Environments: Challenges and Opportunities, Annual Review of Cybertherapy and Telemedicine, 2024. [\[Link\]](#) ****Cyber Student Award**
Trevor Chartier, I Castillion, V Venkatesha, AM Cleary, NT Blanchard
- Automatically Identifying the Human Sense of Familiarity Using Eye Gaze Features, HCII, 2024. [\[Link\]](#)
I Castillion, **Trevor Chartier**, V Venkatesha, NS Okada, A Davis, AM Cleary, NT Blanchard
- The Impact of Synthetic Data on Smoke Detection Accuracy in Computer Vision, CVPR, 2024. [\[Link\]](#)
E Seefried, C Jung, J Fitzgerald, M Bradford, **Trevor Chartier**, NT Blanchard

**** Cyber Student Award** at CyPsy International Conference for outstanding research paper and presentation