Adam Blumoff

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EDUCATION

Amherst College **August 2021 - May 2025**
Bachelor's, Computer Science
- Relevant Coursework: Machine Learning, Artificial Intelligence, Data Science, Databases, Game Development

SKILLS

Skills: Git, Python, Unity, C#, Blender, Adobe Photoshop, Data Analysis, Jupyter, Postgres, JavaScript, Java, R, Power BI, Usability Testing/Engineering, Machine Learning, Data Science, Excel, FastAPI, Docker, Pytorch, Claude Code, Artificial Intelligence, Game Development, Statistical Analysis, Client Communication, Project Management, Data Structures & Algorithms, Blender

PROJECTS

Carebase.dev - *Link to project* **St. Louis, MO, USA**
Solo Developer *September 2025 - Present*
- Delivered a working MVP for a full-stack scheduling platform using TypeScript, React Native, Express, and PostgreSQL, implementing a stateless REST API and webhook-driven two-way calendar sync between backend and Google Calendar.
- Optimized backend performance and scalability by structuring normalized relational schemas, adding query caching, and deploying efficient API routing for low-latency data access.
- Increased system reliability through a monorepo architecture with shared type definitions, automated testing, and continuous integration to ensure consistent behavior across web and mobile clients.
- Accelerated development and improved maintainability by using AI tools like Codex for boilerplate generation, endpoint validation, and refactoring complex synchronization logic.

Student Success Prediction - *Link to project* **St. Louis, MO, USA**
Solo Devloper *June 2025 - August 2025*
- Achieved 81.5% AUC in predicting at-risk K-12 students by developing an AI-powered platform with an explainable neural network model, enhancing early intervention capabilities.
- Increased user engagement and intervention tracking by 30% by developing an intervention management system that includes real-time dashboards and bulk operations, supporting platforms like Canvas, PowerSchool, Google Classroom, and CSV data.
- Ensured software reliability with over 125 automated tests by developing the backend using Python/FastAPI and PostgreSQL, incorporating explainable AI principles to improve system robustness.
- Accelerated development iterations and improved software quality by 20% by leveraging Claude Code for guided development and implementing rapid prototyping and testing methodologies.

Othello Game Engine - *Link to project* **Amherst, MA, USA**
Student *November 2024 - December 2024*
- Achieved a 90% win rate against a fixed opponent by developing and implementing multiple AI algorithms including Principled Variable Search and Q-learning during extensive testing of Othello game engines.
- Conducted over 1,000 game simulations to rigorously analyze the performance of various AI algorithms, leading to data-driven insights on time efficiency and win rates.
- Produced a comprehensive report detailing findings to communicate algorithm performance and insights, enhancing understanding of AI strategies in game development.

Social Dominance Hierarchy Database - *Link to project* **Amherst, MA, USA**
Student *August 2023 - December 2023*
- Streamlined data analysis for over 10,000 bird observation records by designing and implementing a PostgreSQL schema and ETL pipeline in Python, enabling efficient data ingestion and processing for ecological research.
- Enabled actionable insights into social dominance patterns by developing algorithms to calculate dominance scores and applying advanced statistical analysis to hierarchical data in bird populations.
- Increased client satisfaction and project alignment by maintaining continuous client communication, ensuring all deliverables met evolving project requirements and research objectives.
- Improved research data accessibility and usability by building user-friendly data models and reporting tools, facilitating rapid analysis and interpretation by ecological researchers.

PROFESSIONAL EXPERIENCE

Eye Thrive **St. Louis, MO, USA**
Data Analysis Coordinator Intern *June 2023 - August 2023*
- Enhanced accessibility and accuracy of patient records by leading the transition from paper to electronic medical records for over 20,000 files, developing custom JavaScript formulas that doubled record-verification efficiency.
- Reduced manual review time by 15 hours weekly by implementing enhancements to the Excel/Sheets EMR tool, streamlining the record-verification process for improved efficiency.
- Facilitated effective communication between stakeholders by organizing and leading discussions with executives and contractors to design user-friendly EMR wireframes.