ALEKS BEKKER

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EDUCATION

Rensselaer Polytechnic Institute (RPI)   *Troy, NY*
Bachelor of Science in Computer Science, GPA: 3.83   *Anticipated December 2025*
- **Coursework:** Data Structures, Algorithms 1 & 2, Operating Systems, Binary Exploitation, Object-Oriented Programming, Database Systems, Reinforcement Learning, Network Programming
- **Dean's Honors List:** Summer 2024, Spring 2024, Spring 2023, Fall 2022

Machine Learning Specialization   *Coursera*
Certification: https://coursera.org/verify/specialization/9E52XUPWTR23   *July 2023*

EMPLOYMENT

Vlachos Lab, Beth Israel Deaconess Medical Center, Harvard Medical School   *Boston, MA*
Student Researcher   *February 2022 to December 2024*
- Spearheaded the development of a framework to simplify the automation and benchmarking of several cell type annotation tools using Python, R, and PyTorch
- Developed analyses to compare the results of multiple cell type annotation tools, projected to increase research speed by up to 100%
- Developed a backend service in Python & Flask to streamline researcher interaction with spatial genetic information
- Investigated the identification of novel cell types using large language models

House Trevethan, LLC   *Tucson, AZ*
Junior Web Developer   *August 2020 to September 2021*
- Consulted with clients to deliver design and feature requests to maintain their websites

SKILLS & AWARDS

Programming Languages:	Python, Golang, Java, TypeScript, Rust, C, x86 Assembly
Databases & Tools:	PostgreSQL, MySQL, Git, React, Flask, Shell Scripting, GitHub Actions, Supabase, OAuth
Machine Learning:	Neural Networks, Large Language Model Prompt Engineering, Model Context Protocol
Operating Systems:	Linux (Red Hat Enterprise Linux and Ubuntu), Windows, MacOS
Languages:	English, Russian

PROJECTS

Rensselaer Society of Engineers Alumni Networking Site   *Troy, NY*
Technical Lead & Lead Developer   *April 2025 to Present*
- Directed the technical design phase for a 4-person team, establishing the platform's React/Flask/Supabase stack
- Orchestrated discussions around system architecture and core feature set to optimize alumni-student interaction
- Integrated third-party identity provider OAuth with Supabase Auth to enable SSO-based authentication while delegating session management and role enforcement across the stack
- Initialized all project repositories, including CI/CD bootstrapping, API design templates, and contribution guidelines, ensuring a scalable development workflow for a 5+ developer team
- Delivered reusable backend scaffolding to guide secure and efficient implementation by the broader engineering team

EzASM (Rensselaer Center for Open Source)   *Troy, NY*
Project Lead, Contributor   *January 2024 to August 2024*
- Contributed to language implementation for a simplified assembly-like language for the classroom
- Oversaw a front-end architecture overhaul from JavaScript to TypeScript to improve maintainability and reliability

LEADERSHIP EXPERIENCES

Rensselaer Society of Engineering & Innovation   *Troy, NY*
Treasurer   *February 2025 to Present*
- Managed and allocated a $290,000 annual budget to support organization-wide initiatives
- Rebalanced a two-quarter budget to address a 9% revenue shortfall while preserving core operations
- Served on the executive committee, contributing to strategic planning, decision-making, and execution

Network Administrator   *May 2024 to August 2024*
- Deployed, monitored, and maintained network for over 300 total devices
- Led a team of six to maintain the organization's network infrastructure and deploy essential software

Event Manager   *May 2024 to December 2024*
- Organized and executed multiple events hosting 50+ attendees, including a flagship event with over 100 participants