

# ANTON CHAROV

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## EDUCATION

University of Illinois at Urbana-Champaign (GPA: 3.5)

Expected May 2026

*Bachelor of Science in Computer Science*

Related Coursework: Algos    High Frequency Trading Tech    Data Structures    Prob & Stat, CS    Comp. Architecture

## TECHNICAL SKILLS

Programming Languages: C++, Java, Python, C#, SQL, HTML/CSS, C

Frameworks/Tools: SciKit, Pandas, React.js, AWS, FastAPI, Node, Docker, Backtrader, Git, Firebase, Unix, Unreal Engine

## PROJECT HIGHLIGHTS

**Super Smart Interactive ChatGPT Driven AI NPC Simulation (Unreal Engine / C++ / Docker / Blender)** April 2023 – Aug 2024

- Augmented user interaction in a UE simulation by using WhisperAPI to convert speech to text for GPT-API processing.
- Achieved real-time, human-like responses and actions within UE by streamlining input formatting for GPT-API.
- Improved auditory user experience by employing OpenTTS to convert GPT responses into a natural human voice.
- Enabled complex sequential task execution by developing dynamic 3D model movements based on GPT-API actions.
- Ensured strong network processing by building Unix server handling WhisperAPI/OpenTTS docker based components.
- Increased project visibility by producing and editing a simulation video, achieving over **120,000** views on YouTube.

**Perfect Home Finder (Python / Pandas / scikit-learn / MySQL / JavaScript)**

Aug 2023 – Dec 2023

- Enhanced data manageability by streamlining large dataset with over 800,000 observations to 3,000 per U.S. County.
- Improved U.S county data integrity by employing KNN for imputation of missing values for U.S counties (e.g. weather).
- Facilitated effective county clustering by reducing data complexity from 58 to 10 dimensions using PCA and K-means.
- Enriched user decision-making by visualizing chosen “perfect” home locations on interactive map via Python Folium.

**Friends By Course (React / Firebase / JavaScript)**

Feb 2024 – Mar 2024

- Enabled students to chat and connect over shared UIUC courses by creating React web-app in a 36-hour hackathon.
- Allowed users to create accounts / profiles, add friends, and search classmates by course through Firebase backend.

**GPT FlexLab (React / AWS / Node / OpenAI)**

Nov 2023 – Feb 2023

- Enabled multi-chat/parameter modifications by providing user-customizable interface to GPT via a public React app.
- Leveraged AWS infrastructure with dedicated VPC and multiple EC2 instances to ensure scalability and security.
- Delivered a public AWS access point for broader usability, ensuring an easily extendable platform for diverse needs.

**3D Mobile Farming Game About Sheep Protection (Unity / C# / Unreal Engine / C++)**

May 2020 – Dec 2022

- Developed a 3D top-down multi-level strategy game simulation with AI Sheep and Wolves + user interaction in Unity.
- Placed top 1% out of 20K developers at GMTK Jam 2020 and converted app to a 3D cross-platform mobile application.

## WORK EXPERIENCE

**Project Lead**

*Champaign, IL*

*Illinois Data Science Club*

Jan 2024 – May 2024

- Led six 5-people teams in semester-long data science projects addressing problems like cancer, fraud, and housing.
- Provided project guidance / technical expertise on data cleaning (KNN), SciKit-Learn, classifiers, analysis, and matplotlib.
- Enhanced learning environment by pioneering educational and engagement initiatives that grew membership by 30%.

**Software Engineer and Content Manager**

*Naperville, IL*

*Wheels For All*

July 2022 – March 2023.

- Delivered HTML-based web-app across 5 departments by organizing 10-person front-end team fulfilling wireframe.
- Supported knowledge sharing with students by interviewing multiple industry experts (marketing/full stack) in lessons.
- Spearheaded student programming growth by analyzing and managing personal website portfolios of 20+ students.

**Spanish Tutor**

*Highwood, IL*

*Highwood Public Library*

Jan 2022 – June 2023

- Selected strong tutoring candidates for effective homework help programs by collaborating with library advisors.
- Promoted engaging bilingual learning experiences by delivering weekly 1-hour Spanish and English tutoring sections.