

## EDUCATION

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- **Carnegie Mellon University** Pittsburgh, PA  
*Bachelor of Science in Information Systems — GPA: 3.67 — Dean's List, High Honors* May 2021  
78th William Lowell Putnam Mathematical Competition participant.

## PROGRAMMING SKILLS

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**Languages:** Python, Ruby, C, SQL, PL/pgSQL, CoBOL

**Technical Skills:** Git, Unix, MongoDB/PyMongo, Redis, Matplotlib, PostgreSQL, RStudio, Vertabelo

**In Progress:** Smart Contracts/Cryptographic Constructions, Rails, HTML/CSS

**Other:** Russian(fluent), Relational Database Development, Adobe Photoshop, Paint.NET

## PROJECTS & COURSEWORK

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- **Application Design, Coursework:** Built a basic Webapp using the Rails framework to support create, read, and delete operations on anonymous user posts. *Spring 2019*
- **Data Structures, Coursework:** Implemented the Huffman bit-packing algorithm using weighted frequency trees: The final program had the functionality of 7Zip. Also built a low-level virtual machine for memory management in CMU's safe subset of C. *Fall 2018*
- **Database Design, Coursework:** Created a normalized transaction/user store for use in Postgres. Modeled the project after a Venmo architecture and fulfilled payment, deposit, and user functions using SQL scripts & Python. *Fall 2018*
- **PyMusic, Project (Find me on Youtube!):** Built a learning software capable of scanning and playing sheet music. Used Numpy & OpenCV edge detection to find notes on an image. Also used PyAudio & Thread for well-timed audio effects, all packed into a Python-motivated TkInter GUI. Delivered new UX features including accidentals, instruments, and play speeds. *April 2018 - Present*
- **Hack112, Competition:** Developed an audio response tool triggered by music & microphone input in an event loop. Used Pyaudio & Numpy libraries to parse and find audio thresholds for the program. This team contribution was implemented as part of a simple clicking game with a sound component. *April 2018*

## PROFESSIONAL & LEADERSHIP EXPERIENCE

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- **World Leaders Database Project** Carnegie Mellon University IPS  
*Research Assistant* Jan 2019 - Present
  - Helped code & maintain research data spanning 50,000 attributes over several hundred world leaders.
- **Office of New York State Assemblyman Brian Barnwell** AD 30, Queens, NY  
*Research and Data Unit Lead — Senior Staff Member* May - Aug 2018
  - Carried out the campaign-wide tracking of KPI's: made weekly recommendations to refocus canvassing teams to more active turfs, and realized a 3% average gain in success rate for our most active districts.
  - Coordinated and worked closely with a team of 5 interns to create demography reports using official constituent datasets. Also used a DoB database to review tax records for office audit purposes.
  - Worked extensively with non-English speaking constituents & the elderly, and carried out liaison work, turf canvassing, and cold-call/tabling outreach in New York State's 30th Assembly district.
- **Other:**
  - Scrutinized management** of my personal savings portfolio (Robinhood).
  - First chair trumpet** in CMUs All University Orchestra, Tartan Wind Ensemble, Pep Band, and Kiltie Marching Band. Also a soloist for an S&S Orchestra Production. *2017-18*.
  - Volunteer** with Kiwanis International, Camp Invention, and Long Island Alzheimer's Foundation. *2014-17*.
  - Waiter**, PW Yacht Club. Familiar with catering management and industry standard Aloha POS Systems.