

# Ryan Puharic

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## EDUCATION

### Rutgers University

Sep 2021 – Jan 2025

*Bachelor of Science in Computer Science, Bachelor of Arts in Cognitive Science (Linguistics Track)*

*3.72/4.00 GPA*

## TECHNICAL SKILLS

**Languages:** Python, Java, JavaScript, TypeScript, SQL, C, C++, HTML/CSS, MATLAB

**Frameworks:** React Native, React, Next.js, Flask, Express, Node, PyTorch, OpenCV, pandas, Cypress, Spring Boot

**Developer Tools:** Git, Android Studio, MongoDB, Render, Vercel, AWS, PowerApps, Streamlit, Snowflake, Dataiku

## EXPERIENCE

### Aersys

May 2024 – Aug 2024

Software Engineer Intern | *C++, Python, Raspberry Pi*

*Piscataway, NJ*

- Spearheaded the creation of SkyFetch, a robotic drone delivery hub that integrated with Google's Wing delivery service, utilizing C++ on a Raspberry Pi to control stepper and servo motors that lifted packed in bins
- Directed a team of 2 mechanical engineers in designing, prototyping, and facilitating the logistics of building SkyFetch, while also creating financial forecasts and pitching the product to a panel of mock investors
- Developed an AI voice chat assistant in Python using OpenAI's Assistants API and a Streamlit GUI to streamline data retrieval from a warehouse management system, minimizing time spent manually checking inventory

### Otsuka Pharmaceutical

May 2023 – Aug 2023

Data and Analytics Intern | *Python, SQL, Snowflake, PowerApps*

*Princeton, NJ*

- Collaborated to build an ML pipeline that fed patient data through Python (pandas, scikit-learn) and SQL, leveraging K-Means clustering to segment thousands of healthcare providers and enable marketing initiatives
- Redesigned the UI of a PowerApps web app that documented FDA compliance violations, integrating healthcare provider info from external Snowflake databases across 20+ components to minimize user error
- Created an executable Python app that automated Japanese translation of English business cards, via the DeepL Translation API, saving an international department 10+ hours of manual translation time

### Rutgers Center for Cognitive Science

Jan 2023 – May 2023

Research Assistant | *MATLAB*

*New Brunswick, NJ*

- Applied Principal Component Analysis in MATLAB to identify underlying patterns in multi-dimensional EEG time-series data, minimizing data complexity and saving 4+ hours of manual preprocessing time per week

### Rutgers Office of Information Technology

Jul 2021 – May 2024

IT Supervisor | *Python, SQL Server*

*New Brunswick, NJ*

- Supervised a 200+ student technical support team troubleshooting hardware and connectivity issues on campus
- Developed a Python-based shift log auditor that cross-referenced SQL Server database records to identify which consultants were not properly logging their on-shift duties, eliminating 2-3 hours of manual work per week

## PROJECTS

### Skateable | *Javascript, Node, Express, MongoDB, Cypress*

Oct 2024

- Developed and deployed a JavaScript web app on Render using Mapbox and OpenStreetMap, enabling a community of 50+ users to contribute and rate 500+ biking/skating routes based on their smoothness and safety
- Built a secure backend with Node.js, Express, and MongoDB, enabling encrypted data transmission and hashed password authentication via API endpoints to store user-generated routes and safeguard credentials
- Implemented Cypress E2E testing to validate app functionality, ensuring a reliable and seamless user experience

### CatanHelper | *React, Typescript, Python, PostgreSQL*

Dec 2023

- Developed a full stack web app that improves Catan gameplay by optimizing and customizing board setups
- Implemented OpenCV in Python to analyze user-generated images of both physical and online boards
- Linked back end to PostgreSQL database using Flask to allow for personalized generalization settings
- Created and deployed a React TypeScript frontend to production environments using Render and Vercel

### InstaBiz | *Java, Android Studio, Python*

Nov 2022

- Developed an Android app in Android Studio using the Camera2 API in Java to scan business cards
- Integrated OpenCV and Google Cloud Vision API in Python to read and parse text from scanned images
- Implemented Socket servers to send parsed data back to Android app and auto-fill a contact on the user's device