

# JACOB NICOTRA

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## SKILLS

Python, JavaScript, React, Flask, Django, Express.js, Node.js, PostgreSQL, Sequelize, SQLAlchemy, VS Code, Docker, JSON, AWS, ReST API, Linux, DOM, HTML5, CSS3, ES6, HTTP, AJAX, Git, Unit Tests (Jest, Mocha, Chai, Pytest), OOP, Agile, Test Driven Dev.

## PROJECT EXPERIENCE

**Perfect Fit Puzzle app** (JavaScript, Python, PostgreSQL, SQLAlchemy, Flask, React / Redux, HTML5, CSS3) [Live Site](#) | [Github](#)

- Comprehensive database queries paired with frontend Redux state management and CSS3 styling allow the user to effortlessly filter puzzle results by category, piece count, etc.- all while saving the user's filtered search via web local storage
- Secured user information and autonomy through frontend and backend authentication implementations with React Router, permitting users to only access and change their own puzzles and swap requests while logged in
- Utilized complex Flask-SQLAlchemy database models and queries to allow multiple connections between data tables, eliminate unnecessary database queries, and reduce server load to facilitate a smooth and consistent user experience while puzzle swapping
- Implemented AWS image hosting to allow users to seamlessly upload and retrieve images

**Commoji Discord clone** (JavaScript, Python, PostgreSQL, SQLAlchemy, Flask, React / Redux, HTML5, CSS3) [Live Site](#) | [Github](#)

- Provided support for live chat feedback by utilizing Socket.io with Flask and React to transport the user to a real-time experience
- Configured backend Flask server routes to handle incoming unicode for database storage in conjunction with custom functions in React to translate this unicode to a HTML-supported format to display various emoji reactions to the user
- Created smooth messaging environment by leveraging CSS with React - Redux thunks to allow dynamic buttons, input fields, message interactions, and feedback to the user

**LairBnB AirBnB clone** (JavaScript, PostgreSQL, SQLAlchemy, Express, HTML5, CSS3, React) [Live Site](#) | [Github](#)

- Leveraged Express.js RESTful API routes and Sequelize joining queries to reduce unnecessary database queries and serve the front end complex date information in order to provide a smooth user experience while booking
- Utilized React - Datepicker to build an intuitive and powerful calendar with custom validations and live feedback to allow users to dynamically see availability, choose and confirm a time-frame, and prevent booking-conflicts

**Knick Knack Overflow Stack Overflow clone** (JavaScript, PostgreSQL, SQLAlchemy, Express, HTML5, CSS3) [Live Site](#) | [Github](#)

- Built Express server routes paired with Sequelize querying to enable a fast voting system, where votes are stored permanently and users do not experience shortcomings such as double-voting, miss-voting, or latency
- Implemented React thunks to detect a user's vote status and deliver feedback in the form of button CSS effects appropriately to create an intuitive, seamless, and responsive user experience

## EDUCATION

**App Academy - Full Stack Software Engineering**

*Graduated in Feb 2022*

*Relevant coursework: DRY, Coding Best Practices, Systems Design, Data Structures, Algorithms, Agile Methodologies, TDD*

**Elmhurst University - B.S. in Biochemistry**

*Graduated Magna Cum Laude in May 2019*

## WORK EXPERIENCE

**Optometric Technician - Primary Eye Care Associates**

*June 2020 – Aug 2021*

- Exercised acute **attention to detail & empathetic** care while treating the ocular health of **30+ patients per day**
- Created a **complex excel tracker** that automatically measured, monitored and reported on clinic **performance**, which resulted in a **50% increase** in patient elective procedures and generated **over \$192,000 in revenue** over the course of **one year**
- **Mentored 5 new staff members**, training them on medical best practices, clinical conduct, and effective technician skills

**Medical Scribe - ScribeAmerica**

*July 2019 – Jan 2020*

- Mastered **200+ hours** of new terminology, insurance codes and compliance procedures at a rapid pace
- Documented complex patient **data** and physician-dictated notes to aid in the treatment of **1000+** patients, including interpretation and summarization of advanced imaging and pathology for **reporting** across staff functions

**Tutor - Elmhurst University**

*Aug 2017 – June 2019*

- Explained complex **STEM** material in a concise and accessible manner to **> 50** undergraduate students
- Developed comprehensive study plans to facilitate mastery of university courses (Calculus, Statistics, Physics, Physical Chemistry, General Chemistry, Analytical Chemistry, Biochemistry) and standardized tests (MCAT, GRE)

**Undergraduate Research - Elmhurst University & University of Pittsburgh**

*Dec 2016 – Jan 2019*

- Developed a pesticide detector by **analyzing** and **extrapolating** enzyme data using spreadsheets & spectroscopy
- Isolated a novel antibiotic for Staph infection by utilizing **global databases** & DNA sequencing

## VOLUNTEERING

**Crisis Counselor - National Crisis Text Line**

*Nov 2018 - present*

- Dedicated 200+ hours to effectively counsel those who are suicidal or in emotional crises during all hours of the day, working alongside therapists and psychiatrists to master **communication** and **crisis management skills**