# Brett Kolodny

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## Experience

### Merchant Financial - Intern
*Jun 2019 - Aug 2019*

- Developed a Python program using Azure's Computer Vision API to automate the process of separating checks by client, eliminating over 2 hours of toil per week.
- Built a document viewing program in Electron to interact with the company's Salesforce application through the Salesforce REST API.

### theCoderSchool - Coach
*Jan 2019 - Aug 2020*

- Taught 15 students (ages 6 – 18) the fundamentals of programming starting with Scratch and then moving to languages like Python, JavaScript, and Java.
- Developed 43 project based curriculum for each student, slowly increasing the complexity of each project to match the student's skill level.

## Leadership

### President – University at Buffalo ACM
*May 2019 - May 2020*

- Organized weekly meetings and workshops.
- Coordinated with companies for networking events and sponsorships.

### Resident Advisor – University at Buffalo
*Aug 2016 - May 2017*

- Worked with 16 other Resident Advisors in organizing 12 academic and social programs for our residents.
- Acted as a mediator and enforced campus living rules for 34 residents.

## Projects

### Mancala – Multiplayer Web Application

- Full stack implementation of Mancala built with an Elixir/OTP backend, Phoenix server, and ReasonML/React frontend.
- Game logic is handled using Rust native interface functions (NIFs).
- Players use a unique link with which they can invite friends to play and see real time game updates.

*Tech: Elixir/OTP, Phoenix, ReasonML/JavaScript, React, Rust*

### Distributed Publisher-Subscriber System

- Distributed publisher-subscriber system where users can subscribe to topics or specific publishers and be notified when a message is posted.

*Tech: JavaScript, Node, ExpressJS, Docker*

### Study Buddy

- Spaced repetition learning application where users create decks of cards consisting of materials they wish to memorize.
- Implements a priority queue in the rust backend to determine what cards the user should study.

*Tech: JavaScript, React, Reason, Rust, Tauri, HTML/CSS*

### Incantation Catastrophe

- Top-down retro style game where players have to survive as long as possible against waves of enemies.

*Tech: Rust, Amethyst, Blender*

## Education

### University at Buffalo, State University of New York
*Aug 2015 - May 2020*

- International Christian University (ICU) – Tokyo Japan – Study Abroad

*Major: Computer Science*