

# Benjamin Joseph Cortese

813-347-8943 | [bennycortese@gmail.com](mailto:bennycortese@gmail.com) | <https://www.linkedin.com/in/benny-cortese/> | <https://github.com/bennycortese>

## EDUCATION

### University of Florida

Gainesville, FL

*B.S. Computer Science, B.S. Mathematics*

*May 2024*

- GPA: 4.0 / 4.0

## EXPERIENCE

### Microsoft Software Engineering Intern; Redmond, WA

May 2022 – Aug. 2022

*Azure Core, Azure Container Registry*

- Migrated self-managed Kubernetes orchestrator to a more scalable one
- Utilized Docker, Kubernetes, Helm, Bash scripting, YAML, Python automation scripts for deployment migration
- Modified image loading to remove redundancy on a service which receives 18,000 requests per second
- Researched and improved the viability of the Cluster API Provider project for Azure through extensive testing

### University of Florida - Teaching Assistant

Aug. 2021 – Present

*Programming Language Concepts, Discrete Structures, Data Structures and Algorithms*

- Created Kotlin unit tests and modified a Python auto grader and graded 4 tests with Java pseudo-code
- Hosted office hours for over 500 students and held a discussion session where I taught 30 students weekly
- Taught students concepts like compilers by helping them debug Java code and explained discrete math visually

### University of Florida - Research Assistant

Aug. 2021 – Present

*Engaging Learning Lab*

- Researched methods for improving computer science education and worked on improving existing learning models
- Developed a parser which parsed the Java programming language using ANTLR
- Worked on Dual-Modality Instruction project which helped create block based methods for people learning to code

## PROGRAMMING PROJECTS

### Python Defense | *Python, C++, Pygame, Numpy, OS, Ctypes, Trello, Git*

May 2021 – Aug. 2021

- Implemented code in Python and created a dynamic-link library in C++ which I bound and called in Python
- Created a tower defense game where each of the towers was a different programming language
- Tracked issues, branches and version control management using Git and Trello

### Financial Trading Bot | *Python, Discord API, Regex, Requests, Selenium, Threading*

March 2022 – May 2022

- Developed financial trading bot which requested financial data from get endpoints and processes the data
- Multi-threaded API requests to improve performance and process it to determine purchase threshold
- Engineered discord interaction with webhooks for auto purchasing and regular expressions for determining inputs

### Java Discord Bot | *Java, Discord API, Heroku, Google Calendar API, Regex*

February 2022 – April 2022

- Built a discord bot using Java and JDA Discord API to create a classroom bot as an alternative to Slack
- Ran bot on the cloud with Heroku, Integrated the Google Calendar API for reminders
- Partitioned students into different roles and assigned each role separate permission levels

## TECHNICAL SKILLS

**Languages:** C++, Python, Java, C, R, Kotlin, SQL, VHDL

**Frameworks:** JUnit, Django, Flask

**Developer Tools:** Git, Trello, Docker, Kubernetes, Microsoft Azure Cloud Services, Helm, Azure Devops, Bash

**Libraries:** Pandas, NumPy, Matplotlib, Regex, OS, Requests, Pygame, Threading, Discord

**Relevant Coursework:** Data Structures and Algorithms, Operating Systems, Applied Machine Learning, Introduction to Software Engineering, Information and Database Systems, Performant Programming in Python, Programming Language Concepts, Computer Organization

## AWARDS

University Honors Program

Aug. 2020 - Present

Gartner Group Information Technology Scholarship

Spring 2022

President's Honor Roll

Spring 2021, Fall 2021, Spring 2022

Florida Academic Scholarship

Aug. 2020 - Present