# Joseph Azevedo

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## Education

Jun 2018 - Current

**Georgia Institute of Technology** , Atlanta, GA — GPA: 4.0/4.0
Bachelor of Science, Computer Science — Graduation date: May 2022
Concentration: Networking & Graphics

## Skills

**Languages:** Go, Rust, Python, Java, Scala, Kotlin, C, TypeScript, JavaScript, HTML/CSS, Bash, SQL, C#

**Software:** Git, Docker, Kubernetes, OpenShift, Azure, LaTeX, Nginx, Apache, Maven, Webpack, Babel, gRPC/Protobuf, Linux, Windows, SQL (Postgres, MySQL) NoSQL (MongoDB, Elasticsearch), ANTLR, Selenium

**Frameworks:** React, Flask, Express, Play, Akka, Vue.js, jQuery, Android SDK, React Native, .NET, WPF

**Concepts:** Containerization, Orchestration, Agile/SCRUM, Microservices, Unit & integration testing, CI/CD

**Coursework:** Data structures, Algorithms, Databases, Object-oriented design, Networking, Operating systems, Combinatorics

## Work Experience

May 2020 - Aug 2020

### Software Engineering Intern
*MathWorks*

- Developed new features in a **Golang** microservice and a **React** dashboard, including unit and integration testing
- Designed a custom **Kubernetes** controller to work with internal framework and manage dynamic deployments
- Wrote design documentation and created proof of concept in **Go** investigating **Kubernetes** integration

Aug 2019 - Current

### Senior Teaching Assistant
*Georgia Institute of Technology | CS 2340 - Objects & Design (Object-oriented design)*

- Led a team of 6 other teaching assistants to prepare and deliver lectures over the course of the semester
- Graded project milestones and held office hours for students making a group project in **Java Swing** or **Python Flask**
- Created code style autograder scripts/workflow using **Python** for student projects used by 1,300+ students over 3 semesters

## Leadership

July 2019 - Aug 2020

### President
*Georgia Tech Esports Club*

- Led one of the largest student organizations at Georgia Tech with over **300 active members** and **30 competitive teams**
- Designed for and coordinated push to unify branding for the club and its events, including logos, graphics, and videos
- Worked with team of officers to conduct corporate outreach and partner with campus administration for funding

**Logistics & Event Organizer** *Gamefest 2019* • gamefest.gg

- Led a small team of organizers to plan and host a regional collegiate tournament with over **400 participants**
- Worked with campus administration to secure support and managed a team of **20 volunteers** working the day of the event

## Projects

Feb 2020 - Current

### rAdvisor
*Open-source system resource utilization tool for Docker & Kubernetes* • elba-docker/radvisor

- Developed a high-performance, concurrent CLI tool in **Rust** that monitors **Linux** cgroups and polls the **Docker** daemon
- Conducted hundreds of distributed experimental workflows using **Python**/**Bash** to test overhead and consistency
- Wrote final report that details the software design, experimental procedure, and results • elba-docker/report
- Continued working as a **research assistant** starting Fall 2020 at Georgia Tech to work on integrating this tool into a system performance monitoring toolkit

May 2019 - Current

### Architus Full Stack Application
*Open-source chat bot & API with web dashboard* • architus • architus/architus • architus/archit.us

- Engineered front-end web application with **React**/**Redux** to consume, process, and display API data
- Built microservice-based back-end using **Python**/**Flask**, **Rust**, **RabbitMQ**, **PostgreSQL**, and **Elasticsearch**
- Spearheaded migration to use **Kubernetes**, motivated by increased server load and growing user base (**40,000+ users**)

Jan 2019 - May 2019

### Risk Web Application
*Software engineering class group project* • jazevedo620/cs2340-risk

- Engineered back-end and websocket-based network model in **Scala**, using **Akka** actors to process game and lobby state
- Containerized application using **Docker**/**Alpine** and configured deployment on both **Kubernetes** and **OpenShift**