

## Alexander Joseph Montes

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### EDUCATION

**Rensselaer Polytechnic Institute – Troy, NY**

**Present - Class of 2023**

**Bachelor of Science:** Computer Science

**GPA: 3.6**

**Related Courses:** Programming Languages, Large Scale Programming & Testing, Operating Systems, Introduction to Algorithms, Principles of Software, Foundations of Computer Science, Computer Organization, Data Structures

### EXPERIENCE

RENSSELAER POLYTECHNIC INSTITUTE

**Troy, NY**

**Undergraduate Research Project**

**May 2021 – Present**

- ❖ Managing five students to engineer a survey module embodying reactive components and WebAIM principles
- ❖ Developing JSON request bodies for backend microservices to create survey data to AWS ElastiCache instances
- ❖ Improving backend unit testing utilizing Selenium's WebDriver allowing for a 20% increase in effectiveness
- ❖ Orchestrated the build out of a backend authentication page utilizing Rensselaer's Central Authentication Service

RENSSELAER POLYTECHNIC INSTITUTE

**Troy, NY**

**Independent Research Project**

**January 2021 – May 2021**

- ❖ Oversaw the development of an interactive progressive web application for the School of Humanities, Arts, and Social Sciences allowing students to plan and register for their desired courses built with Node.js and Django
- ❖ Employed Postman's API tool to build out an enhanced endpoint documentation increasing readability by 15%
- ❖ Incorporated a SQL filtering, search ranking, and dynamic data extracting microservice improving runtime by 8%

RENSSELAER POLYTECHNIC INSTITUTE

**Troy, NY**

**Help Desk Consultant**

**August 2021 – Present**

- ❖ Assisting students and faculty in resolving problems and queries via walk-in and over-the-phone arrangements
- ❖ Working together alongside other help desk consultants to troubleshoot client software and hardware issues
- ❖ Managed user and faculty accounts, printers, and workstations through Microsoft Azure Active Directory
- ❖ Coordinating computer repairs with Rensselaer's computer repair shop through Zendesk's support system

### PROJECTS

SMARTRIDER

**August 2020 – Present**

- ❖ Spearheading the iOS development team of two students providing mentorship in both system and unit testing
- ❖ Overhauled user experience pages enhancing mobile accessibility incorporating W3C WAI readiness guidelines
- ❖ Augmented a user management dashboard for internal school administrators to audit and monitor reported users
- ❖ Extended Google Firebase to support user authentication engulfing 2FA on iOS and Android personal devices

SYMPTOM MATCH

**May 2021 – September 2021**

- ❖ Directed a group of four student developers to create a health application built with Django, React, and Flask which would diagnose end-users based off of entered health symptoms and current personal health conditions
- ❖ Utilized decision tree, random forest, and Naive Bayes' algorithms to return the highest ranked health diagnosis
- ❖ Automated the extraction of data from online databases including information from both WebMD and Wikipedia
- ❖ Created a backend script in Python embodying Celery to dynamically update health conditions on a weekly basis

### TECHNICAL PROFICIENCY

**Programming Languages:** C++, C, Java, Python, JavaScript (React, Vue), Swift, Flutter (Dart)

**Operating Systems:** macOS, Microsoft Windows, Linux (Ubuntu), iOS, watchOS, tvOS

**Other:** Git, GitHub, Firebase, AWS Elasticache, PostgreSQL, LLDB, Heroku, Homebridge

**Recognition:** Rensselaer Leadership Award, National Society of Leadership and Success (NSLS)