Katherine Burgess

Homer City, PA | burgess01@allegheny.edu | 724 -762-6222 | https://github.com/burgess01

EDUCATION

Allegheny College, *Meadville, PA* **May 2023**
Bachelors of Science in Computer Science **GPA: 3.98/4.00**
Minor: Economics

Awards, Societies, and Distinguishments: Distinguished Alden Scholar, Trustee Scholar, Honors College, Lambda Sigma, Alpha Delta Pi - Eta Beta Chapter, Omicron Delta Epsilon Economics Honors Society - Alpha Psi Chapter

Leadership and Membership: Co-Founder & Director of Operations - Women in Pop Culture Club, President - Association for Computing Machinery (ACM), Vice President of Operations - Alpha Delta Pi Eta Beta Chapter, Secretary - Lambda Sigma

TECHNICAL SKILLS & CERTIFICATIONS

Certifications: *Bloomberg Certification (BMC), LinkedIn Python Skill Assessment Badge*
Allegheny College Microcredentials: *Software Development with Python, Data Analysis with Python and R*
Programming: *Python, C, Java, SpringBoot, SQL, C#, Linq, Go*
Interfaces*: Docker, Git, Bash, Postman, MongoDB Compass, Openshift, Microsoft Excel, Microsoft Word*

WORK EXPERIENCE

Continuous Improvement Intern, *Acutec Precision Aerospace Inc.* **Fall 2022 - Present**
- Worked with SQL Databases, wrote C# code to integreate daily API calls & SQL queries into tables
- Troubleshoot SQL timeouts, massaging SQL and CSV data into excel tables to find root cause
- Participated in daily standup meetings and other required ceremonies the team held

Automation Engineer Intern, *Acutec Precision Aerospace Inc.* **Fall 2022 - Present**
- Programmed FANUC Robots in order to Autonomize CNC machines, deburr parts, and deduce errors in production
- Wrote wiring schematics in order to synchronize I/O between machines, robots, and human users
- Debugged code of my coworkers and manager, giving solutions to improve performance and reduce redundancy

Head Resident Advisor, North Village Residence Hall, *Allegheny College* **Fall 2022 - Present**
Resident Advisor, Schultz Residence Hall, *Allegheny College* **Fall 2021 - Spring 2022**
- Supervise 36 residential students as well as overseeing 300+ residents and 6+ Resident Advisors, assisting with a variety of issues such as mitigating roommate complaints, mental health concerns, monitoring academic performance, and acclimating to life on campus as HRA
- Cultivate safe residential environment that encourages students to follow student code of conduct in accordance with campus guidelines
- Establish trustworthy relationships and culture with residents through hall and individual meetings to ensure students are maintaining engagement with campus rules and resources such as counseling center, health center, and other important areas

Technical Lead, Computer Science Department, *Allegheny College* **Fall 2021 - Present**
- Performed and collaborated at the top to of my classes, leading to professors to ask me to come back to assist with their classes
- Hosted hour office sessions weekly, helping students in computer science classes with labs, assignments, studying for exams, etc.
- Attended practical and lab sessions weekly, answering questions on data structures and software engineering concepts in Python

Software Development Intern, Technology Intern Program, *PNC* **Summer 2022**
- Worked for 10 weeks on an agile team in the Retail MIS department
- Performed service updates and created documentation pages detailing service upgrades I created based on my research
- Gained experience with interfaces such as Postman, MongoDB Collections,OpenShift, etc. testing for compliance and correctness

RESEARCH EXPERIENCE

Undergraduate Student Researcher, Biology Department - Dr. Tricia Humphreys, *Allegheny College* **Spring 2022**
- Utilized BEAST to perform Beysneian Model Averaging
- Visualized results using FigTree, creating phylogenetic trees
- Researched differences over time in various Haemophilus ducreyi strains

Summer Researcher, Computer Science Department - Dr. Bonham-Carter, *Allegheny College* **Summer 2021**
- Assisted Professor Oliver Bonham-Carter, Ph.D, supplementing his work on connecting studies through their choice in references
- Received an institutional grant to conduct research under departmental professor within a 7 week period up to 30 hours weekly
- Utilized Python library Plotly to provide visualization of data using that is accessible and user friendly to those outside of the field

PROJECT EXPERIENCE

GatorGrader, *Allegheny College, https://github.com/GatorEducator/gatorgrade* **Spring 2022 - Present**
- Worked on the Integration team, collaborated to lead other teams and create a comprehensive working tool
- Programmed the CLI using the typer library, created and maintained tests to ensure continued functionality
- Created the Github Action and documentation for the software, published to GitHub Marketplace under name 'GatorGrader'