## Paul Adutwum

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### **EDUCATION**

Bates College Lewsiton, Maine

Bachelor of Science in Physics and Mathematics GPA 3.96/4.0

Expected Graduation: May 2027

#### **SKILLS**

Technical: C++, Python, Java, Jupyter, Javascript, Visual Studio Code, GitHub, MATLAB, RStudio, CSS, HTML

#### **WORK EXPERIENCE**

# Introduction to Computer Science and Software Development in Python at Bates College

Lewiston, Maine

Course Attached Tutor

Fall 2024 - Present

- Organize bi-weekly drop-in sessions for Introduction to Computer Science, guiding students in problem-solving through hands-on exercises
- Translate nuanced technical concepts into clear explanations to help students apply skills in scripting, testing, and debugging
- Grades students' projects

# IT Help Desk at Bates College

Lewiston, Maine
Summer 2024 – Present

Student Technology Assistant

- Provide Tier 2 technical support for hardware, software, and network issues across the campus
- Lead hands-on training sessions for new student recruits and existing team members, focusing on technical proficiency, problem-solving techniques, and effective troubleshooting skills
- Developed user-centric documentation and troubleshooting guides, including FAQs and step-by-step workflows, improve service resolution and response time

### Department of Mathematics at Bates College

Lewiston, Maine

Research Assistant

Summer 2024

- Utilized Java's LinkedList and arrays, to manage large dynamic sequences, enabling efficient access, insertion, and uniqueness checks for Ulam sequence terms
- Achieved computation of up to a billion Ulam sequence terms in under a minute using Java
- Enhanced memory efficiency using Java's garbage collection
- **Publication**: Preprint of findings available on <u>arXiv:2410.01217</u>

## **PROJECTS**

Web Developer Lewiston, Maine

https://akohealthfoundation.com/

Summer 2024

• Developed a dynamic and user-friendly website focused on raising awareness about Chronic Non-Communicable Diseases, including diabetes, hypertension, and stroke in Ghana.

#### Library Management App

Lewiston, Maine

Library Management Application

Spring 2024

Developed core functions allowing users to add, borrow, return, search and track books in the library using python data structures

#### Skywalker: 2D Platformer Game developed with Pygame

Lewiston, Maine

Winter 2023 - Winter 2024

Skywalker: 2D Platformer Game

- Implemented core gameplay mechanics, including player movement, jumping, collectible items, and collision detection
- Designed background scrolling and frame rate control to enable responsive gameplay and efficient game record storage

### **HONORS & ACTIVITIES**

Honors: Dana Scholar 2027, Dean's List 2023- 2024, Most Outstanding Community Engagement by a First Year Student 2024 Activities: American Mathematical Society, ColorStack, Bates Coding Club, Physics and Astronomy Club, Volleyball Club, Soceer Club, Aspirations Club, Bonner Racial Justice Fellow, Resident Advisor, Innovate Ghana Tech Crew, Young Achievers Foundation of Ghana