

Jack M. D'Angelo

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EDUCATION

Georgetown University, Washington, DC

Graduated December 2024

Bachelor of Science in Computer Science, Minor in Mathematics

GPA: 3.7/4.0

TECHNICAL SKILLS

Languages: C/C++, Python, JavaScript, C#, Java, SQL, BASH, HTML/CSS, Kotlin, Swift, Dart

Tools & Technologies: Git, PostgreSQL, Firestore, IndexedDB, OPFS, Redis, Node.js, Unity, Puppeteer, Selenium

Operating Systems & IDEs: Windows, Linux, Mac, Visual Studio Code, JetBrains IntelliJ IDEA, CLion, & Rider

EXPERIENCE

Burbio, Pelham, NY

June 2024 - Present

Data Automation Intern – Automating data workflows to reduce manual labor and optimize operations for a small business providing school district data to vendors serving the education sector.

- Played instrumental role in successful release of Burbio's new product, the Superintendent Turnover Tracker, by designing and implementing automation to manage and continuously update the main dataset.
- Significantly reduced manual workload while dramatically improving operational efficiency, without incremental costs, by leveraging free resources, including Google Gemini API, GitHub Actions, Google Alerts.
- Protected integrity & availability by implementing monitoring system for top 2,000 school districts' websites
- Delivered tailored technology stack recommendations, and assessments of API/software viability, utilizing AI to rapidly self-tutor on new tools and technologies, ensuring informed decisions and optimizing team workflows.
- Ensured timely and accurate data by developing reusable components and automated pipelines.

Georgetown University, Washington, DC

March 2024 - December 2024

Research Assistant – Collaborating on a NASA-funded project to transform Mars and Lunar terrain visualization software into a web application using WebGL2, enhancing data accessibility and user experience.

- Reduced load times and enhanced user experience by integrating persistent storage solutions with the Origin Private File System.
- Achieved a 40% reduction in processing and chunking times by converting JavaScript into C++ and compiling it into WebAssembly modules, leveraging multithreading within WebAssembly to process file chunks in parallel. Utilized Web Worker threads to offload tasks from the main thread, combining both threading approaches to maximize performance and responsiveness.
- Contributed to project's progression through weekly team design meetings and show-back demonstrations.
- Refined application's design and functionality, incorporating valuable feedback from a NASA geophysicist.
- Designed and presented a poster board at the American Geophysical Union 2024 annual meeting.
- On track for initial version release in January, with research targeted for publication by A.G.U.

Georgetown University, Washington, DC

July 2023 - December 2024

Teaching Assistant – Tutoring and grading for Data Structures, Computer Science I, and Computer Science II

- Ensured student success by tutoring Georgetown students 4-5 times a week, simplifying complex topics such as memory management, generic typing, OOP, exception handling, and bitwise operations, for students learning C++.
- Equipped students with essential skills not covered in curriculum, including proficient IDE usage, remote Linux development via SSH, and debugging techniques.
- Provided timely grading of course assignments, adhering to professor's specifications while offering constructive feedback to enhance student learning.

PROJECTS PORTFOLIO

jackdangelo10.github.io/PortfolioWebsite