William (Liam) Stamper

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Education

The University of Iowa, Iowa City, IA August 2021 – Anticipated December 2024

Bachelor's Degree in Computer Science, Minor in Mathematics

- **Course Work:** Data Structures, Algorithms, Discrete Structures, Calculus I-III, Matrix/Linear Algebra, Computer Science I-II, Software Development, Numerical Analysis (in-progress)
- **Extracurriculars:** Active member of the Association for Computing Machinery (ACM), UIowaHackathon 2023 Award Winner

Experience

Undergraduate Researcher January 2024 – Present

The University of Iowa, Iowa City, IA

- Utilized Python OpenCV library to accurately count and analyze cells within bone marrow scans, enhancing research accuracy and efficiency
- Collaborated with a multidisciplinary team to validate cell counting methods, resulting in a 60% increase in data collection speed without compromising precision

Full Stack Developer Group Intern May 2022 – July 2022

Quality Manufacturing, West Des Moines, IA

- Engineered and deployed 5 dynamic form applications leveraging JavaScript, HTML/CSS, Ajax, MySQL, JSON and PHP
- Completed an intensive training program on web development framework and best practices
- Collaborated within a 5 person team to fulfill the technical requirements of over 10 client companies, enhancing customer satisfaction and operational efficiency

Projects

Art and Artifact Cataloging System | PyTorch, *Python* November 2023 – Present

- Retrained and implemented advanced PyTorch-based Faster R-CNN object detection models for identifying and localizing art pieces within images
- Ongoing project focused on advancing the capabilities of the cataloging system for art and artifact enthusiasts and professionals

GitHub Readme Preview for VS Code | TypeScript*, HTML/CSS* February 2024 – Present

- A Visual Studio Code extension to enhance README.md editing
- Provides a real-time GitHub-style preview of README files to simplify documentation writing

CellScope | *Python, OpenCV, Flask, HTML/CSS* February 2023 – Present

- Designed and implemented a full stack web application utilizing Python, Flask and OpenCV to count cells in large bone marrow scans (300,000+)
- Built a user friendly web interface to upload images and interact with analysis

Languages / Technologies

- **Languages:** Proficient in Julia, Java, C++, JavaScript and TypeScript; knowledgeable in Python, HTML/CSS, Tailwind CSS and SQL

- **Technologies:** Experienced with Git, Subversion, Docker, and familiar with Agile development methodologies