

Zachary Bricknell

zachary.bricknell@gmail.com | [linkedin.com/in/zachary-bricknell/](https://www.linkedin.com/in/zachary-bricknell/) | github.com/Zachary-Bricknell

WORK EXPERIENCE

Iterayt

Remote, Ottawa

Contractor

January 2023 – Present

- Delivered requested frontend UI features using React.
- Iterated on scalable backend services using Python, Node.js, & C#.
- Enhanced development velocity by leveraging Docker for quick testing, deployment, and scaling services.
- Wrote comprehensive integration and unit tests, reducing potential production incidents.
- Created technical documentation and user guides, enhancing usability and maintainability of software.
- Implemented design patterns to support code quality, resulting in less refactoring and high overall release velocity.
- Handled persistence CRUD operations in our REST api via Sequelize ORM

PROJECTS

LiDAR Noise Reduction and Analysis - Project Pinecone

- Utilized Python, JavaScript, and SQL to construct a bot that ingests real-time data from the Trent University website.
- Created and published a Python distribution package on PYPI.
- Designed and implemented a Discord bot to improve the efficiency of student queries for Trent University.
- Employed BeautifulSoup and Selenium for data scraping to automate the process of retrieving and providing relevant information to students.
- Coordinated with key stakeholders using Agile methodologies, incorporating iterative feedback to ensure timely and successful completion. Selected and implemented noise reduction algorithms, significantly reducing taper extraction failure rates.
- Successfully transformed raw point cloud data into precise tree taper models, enhancing forestry management decisions.

Discord Data Collection Agent - TrentUBuddy

- Designed and implemented a Discord bot to improve the efficiency of student queries for Trent University.
- Utilized Python, JavaScript, and SQL to construct a bot that ingests real-time data from the Trent University website.
- Employed BeautifulSoup and Selenium for data manipulation.
- Created and published a Python distribution package on PYPI.
- Organized and managed a live beta-testing phase with over 100 students, collecting feedback to refine and improve the bot's functionality.
- Automated data retrieval from Trent University's website, reducing the time students spent on administrative tasks

EDUCATION

Trent University

Peterborough, Ontario

Bachelor of Science in Computer Science

April 2024

Specialization: Software Engineering

Relevant Coursework: Application of AI; Capstone; Web Development; Advanced Algorithms; Software Architecture

SKILLS

Languages: C++, C#, Python, JavaScript, TypeScript, SQL, MySQL, PHP, HTML5, CSS

Libraries and Frameworks: .NET, React (hooks), React Native, Next.js, Expo, .Net

Tools: Git, Docker, Selenium, BeautifulSoup, Open3d, Numpy, Scikit-learn