

AIDEN STEVENSON BRADWELL

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EDUCATION

BSc Major in Computer Science, Major in Psychology

University of Ottawa

Ottawa, ON, CA

Aug. 2018 – Dec. 2022

- Graduated with Magna Cum Laude
- Member of Dean's Honours list 2018 - 2022

EXPERIENCE

Java Web-App Developer (Spring)

Department of Fisheries and Oceans

May 2022 – Sep. 2022

Ottawa, ON, CA

- Developed a **REST API** using **Spring MVC** and **PostgreSQL** to store & manage ongoing prototypes/projects
- Developed a full-stack web application using **Spring Boot**, **PostgreSQL**, and **Thymeleaf** template engine
- Explored methods of presenting prototypes to gain interest of department staff
- Oversaw **Agile methodologies** throughout **greenfield project development**

Embedded Software Developer

Microchip Technology Incorporated

Jan. 2021 – Aug. 2021

Kanata, ON, CA

- Reverse engineered legacy **automated testing software** in semiconductor lab setting
- Developed **Python CLI** with **Robot Framework** automation back-end, **GPIO interaction**, and oscilloscope output
- Gained experience conceptualizing, prototyping, and delivering **low-level systems** in semiconductor R&D environment

Undergraduate Computer Vision Researcher

National Research Council of Canada

May 2020 – Aug. 2020

Ottawa, ON, CA

- Explored methods of early Alzheimer's detection through **computer vision** based eye-tracking
- Explored methods of RGB webcam **gaze-estimation** and **eye-tracking**
- Developed 4-task experiment in PyGame with gaze tracking **neural network analysis**
- Chosen to present virtually to the NRC's **Computer Vision and Graphics** team

TECHNICAL SKILLS

Languages: Python, Java, Go, Prolog, Racket, C/C++, Scheme, Ocaml, TCL, HTML/CSS, SQL(Postgres, MySQL), JavaScript

Frameworks: Robot Framework, Thymeleaf, Spring Boot MVC, Bootstrap, React.js

Developer Tools: Git, PyCharm, IntelliJ, GoLand, VS Code, Visual Studio, Eclipse, Jira, Confluence, Azure DevOps

Libraries: OpenCV, NumPy, Matplotlib, pandas, PyGame, PyGPIO, colorama, Tensorflow

PROJECTS

Spring MVC to React Site Conversion

- Converted portfolio site from **Spring MVC** to **React** framework with **Express & Pug**
- Converted **H2 Database** back-end to **PostgreSQL**
- **Thymeleaf dynamic HTML** adjusted to **dynamic JADE**
- Transitioned **REST API** to **React Routers** with **Express & Pug**

Complex Image Number Recognition

- Developed **image pre-processing** method to isolate numbers in image in **Python 3**
- Trained **convolutional neural network** for number identification using **TensorFlow** library
- Prepared and presented **statistical analysis of structure and accuracy**

RELEVANT EDUCATION

- **CSI 4133:** Computer Methods in Picture Processing and Analysis
- **CSI 4124:** Foundations of Modelling and Simulation
- **CSI 4106:** Introduction to Artificial Intelligence
- **CSI 3131:** Operating Systems
- **CSI 2372:** Advanced Programming Concepts with C++
- **CEG 2136:** Computer Architecture I
- **CSI 3105:** Design and Analysis of Algorithms I
- **CSI 2132:** Database I

ADDITIONAL INFORMATION

- Right to work in UK through British Nationality
- Active Canadian Reliability Security Clearance
- **References available upon request**