




ALICE ZHAO

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TECHNICAL SKILLS

Languages: C/C++, JavaScript/TypeScript, Java, Python, SQL, Visual Programming Language (VPL), HTML, CSS
Libraries & Frameworks: Kubernetes, Docker, React, Node.JS, Flask, Pandas, OpenCV, AWS, Jenkins
Technologies: MatLab, Adobe Suite, Microsoft Suite, Power BI, Power Apps, Unity, Blender, Figma, Git

EDUCATION

University of Waterloo

Sep. 2023 – Apr. 2028

Candidate of Bachelor of Software Engineering Honours

Waterloo, ON

- University of Waterloo President's Scholarship of Distinction; WiSE representative; Currently in Excellent standing.

EXPERIENCE

Eon Media

May 2024 – Aug. 2024

Artificial Intelligence/Machine Learning Software Engineer

Toronto, ON


- Led backend development of generative AI product from inception to prototype with **Flask**, **Selenium**, and fine-tuned **LLMs**
- Automated code deployment, data preprocessing, and result validation using **Bash** and **Python** scripts
- Created and optimized video encoding, object detection, and text detection algorithms using **FFmpeg**, **OpenCV**, and **Torch**
- Containerized algorithms with **Docker** to facilitate debugging, cloud deployment, and reuse within pipelines

Bloom Investing

May 2022 – Aug. 2022

Augmented Reality Developer

San Francisco, CA

- Generated **5+ Million** social media impressions for Bloom Investing by creating an interactive  **TikTok AR Effect** educating teens on investing. Leading to a **15% rise** in follower count within the first month of launch.
- Used **Effect House**, **Blender**, **VPL**, **Figma** and **Adobe Suite** to build an interactive effect, visually consistent with brand identity.
- Engaged in effective collaboration and communication with leadership and cross-functional teams, adopting **agile methodologies** and actively engaging in discussions to expedite feedback integration and project delivery.

Cromarty Tennis Club

Jun. 2021 – Aug. 2023


Head Tennis Coach/Club Pro

Sydney, NS

- Planned and led lessons for **300+ juniors and adults** while overseeing **5 instructors**, doubling junior membership over 3 years.
- Organized yearly regional junior tournaments for **80 juniors**, scheduling **120+ matches** and managing **\$5000+** in funds.
- Introduced a weekly ladies night successfully emphasizing girls and women in tennis. **15+ weekly turnout**.
- Enhanced accessibility and inclusivity by providing multilingual tennis coaching in **French**, **English**, and **Chinese**.

PROJECTS

Autonomous Tank | *OpenCV, Python, Flask, Raspberry Pi 4*

- Built a vehicle autonomously navigating a **1km** campus route successfully, featured on  **OpenCV Live**.
- Implemented and improved edge detection and object avoidance by **40%** in diverse lighting conditions, through the innovative use of **OpenCV**, HSV and contrast-based filtering techniques. Enabling real-time processing at **20 frames per second**.
- Generated **10,000+** virtual environments for machine learning **Dijkstra's algorithm** optimization training data from Google Maps.
- Assembled and prototyped hardware and electrical components, completed unit testing using **Jenkins**.

Augmented Reality Development | *Blender, JavaScript, Lens Studio, Effect House, VPL*

- Amassed over **3 Billion** total impressions across **200+ AR effects** (views, uses, shares). Reaching Celebrities and Influencers such as Lando Norris, Bella Poarch, Brooke Monk etc. Currently in the **top 1% of augmented reality developers**.
- Creating augmented reality filters for Snapchat and TikTok using **JavaScript**, **VPL**, **Blender 3D modelling**, **Adobe Suite**.
- Trained and optimized **TensorFlow**, **PyTorch** and **ONNX** machine learning models using **Google Colab** for use in real-time style transfer and multi-object detection in **ARCore/ARKit** frameworks, significantly improving performance and user interaction.
- Developed interactive **UI/UX** templates for free use by **100+ members** in the community.

Cromarty Club Website | *React, Node.JS, MongoDB, JavaScript, AWS*

- Developed a responsive and user-friendly website for the Cromarty Tennis Club, leveraging **AWS EC2**, resulting in a **40% increase** in community engagement and a **10% rise** in new memberships within the first 6 months.
- Implemented a secure, scalable court authentication system for **300+ members** using **React**, **Node.JS** and **MongoDB**.
- Introduced interactive feedback forms and event calendars, fostering a more engaged and active club community.