Alexander Dumouchelle

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Summary

I'm a software and machine learning engineer who is always excited to take on new challenges. I thrive in fast-paced environments with a dedicated team. I've worked on projects ranging from computer vision automation to full-stack web development. In addition, I'm also an involved teacher and performer with a love for music and education.

Education

BS **James Madison University**, Computer Science & Independent Scholars   Harrisonburg, VA
Aug 2019 - May 2023
- **GPA 3.65 / 4.0** - 169 credits - avg 20 credits/semester
- **Minors** in Music, Music Industry, and Honors Interdisciplinary Studies
- **President's and Dean's List** - 6 of 8 semesters
- **Drum Major** - JMU Marching Royal Dukes - 500+ members

Experience

Accenture Federal Services, Software, ML, and Data Management Engineer   Arlington, VA
Aug 2023 - Present
- Product architect for human-in-the-loop app to retrain an anomaly detection model
- Challenged to turn complex dataflows into simple UIs for non-technical operators
- Lead full-stack developer for an internal data labeling accelerator
- Increased labeling efficiency by 80% with Python and Docker-based automation
- Trained computer vision models for image restoration and artifact classification
- Managed DAG implementation of computer vision pipeline with 30+ containers
- Worked on three projects simultaneously, balancing deadlines and responsibility

Volunteering and Entrepreneurship

OpenMarch - *Founder & Lead Developer*

Founder of OpenMarch , a community-driven, open-source drill design tool aimed at making marching band drill writing more accessible. OpenMarch exists to lower the barrier to entry for young designers and educators who lack access to expensive software. I balance this passion project alongside my full-time work, dedicating countless hours to coding, managing product development, engaging with the marching arts community, traveling for networking events, and fostering an open-source ecosystem. My work blends technical innovation with a mission to support and grow the activity through accessibility and collaboration.

- **Product Development**: Built with a focus on speed and simplicity using React, SQLite, and Electron.
- **Community Engagement**: Manage a thriving Discord community to gather feedback and foster collaboration.
- **Business & Marketing**: Launched merchandise to support OpenMarch's growth, overseeing branding and sales.
- **Technical Leadership**: Led development while balancing feature scope, performance, and user experience.
- **Strategic Partnerships**: Collaborated with industry companies that expand OpenMarch's reach and knowledge.
- **Future Proofed**: Kept costs low with no server expenses and a web-based stack, ensuring long-term support.
- **Battle Tested**: In it's first two months, OpenMarch was used to design 50+ shows in addition to my own school's.

Technical Skills

Frameworks and Libraries: React, Pytorch, Django, Next.js, Node.js, Electron, Tailwind, FastAPI

Tools and Techniques: AWS (S3, EC2), Computer Vision, CI/CD, Linux, Docker, FP, OOP, Agile, RESTful APIs

Interests

Teaching: High school marching band and drum corps instructor (200+ members), show and drill design

Performing: Brass band, solo competitions, and community ensembles