Alex Barkin

University of Waterloo Faculty of Engineering - 3A Mechatronics

ahbarkin@uwaterloo.ca ⊠ +1 (416) 460-5707 ⊠ github.com/alexbarkin ⊠ linkedin.com/in/abarkin ⊠ alexbarkin.github.io

SKILLS

Languages:

Work experience

- Python, JavaScript, HTML, CSS

School experience

- Java, RobotC, C++, ArduinoC

Tools, Technologies, and Frameworks:

Work experience

- ReactJS, Django, Adobe Photoshop, Adobe Flash, AutoCAD and SOLIDWORKS

ACHIEVEMENTS

Education:

- Ranked 9th out of 104 students in mechatronics 2B
- Qualified Dean's list 3 out of 4 terms of study

Cisco FIT Certificates:

- Software Design and Development
- Interactive Multimedia
- Network Systems and Operations

HOBBIES AND INTERESTS

Programming:

- Developing my personal website - take a look
- Member of William Lyon Mackenzie's senior coding team

Arts:

- Self-taught embroiderer
- Weekend Photoshop warrior
- Performed in community theatre and school musicals including Nine, Gypsy and Grease

Cars:

- Proud member of Jeep Nation

EXPERIENCE

Wave HQ, Leslieville Toronto — *Accounting Platform Team*

Software Engineering Co-Op

- Designed software to support over 100,000 monthly active businesses
- Continuously focused on security and accuracy of financial data to ensure high integrity transactions and maintain users' trust
- Worked on a small team responsible for writing our own tests and ensuring high-quality, readable code
- Monitored code releases in Sentry, and collected metrics using SumoLogic for functional analysis of the platform

Wave HQ, Leslieville Toronto — *Machine Learning Team*

Software Engineering Co-Op

- Worked on a neural network to categorize financial transactions
- Set up PagerDuty alerts for the team triggered by Sentry errors
- Created the first iteration of a credit model to assess loan risk
- Used tools such as Pandas and Scikit-learn to apply unsupervised learning and dimensionality reduction for performance analysis of the neural network, documenting findings in a report

Design Plastics International, Concord Vaughan

Mechanical Engineering Co-Op

- Designed, prototyped, and built displays for stores and tradeshows
- Worked directly with large companies such as Blundstone Jamieson, and Philips
- Ensured client's expectations and decided budgets were respected
- Utilized 3D printers, CNCs, table saws, industrial printers, and other in-house tools to build customized displays
- Developed plans in SOLIDWORKS, Adobe Illustrator, and Esko's CAM offering to interface with the CNC

PROJECTS

Personal Website — alexbarkin.github.io

- Programmed a personal website in React using a Gatsby framework
- Focused on creating reusable, accessible, components leveraging semantic HTML5 tags and React component structure
- Implemented a responsive layout for use on mobile phones

Dolphinity — github.com/alexbarkin/Dolphinity

- Developed an educational game on the effects of pollution
- Applied knowledge of object-oriented programming in Java
- Created UML and JavaDoc documentation to support the game