# Alexys Dussier

**ENSEEIHT**, Video Game Development Engineer and Gaming Startupper

#### Contact

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## Languages

French: native English: bilingual Japanese: beginner

#### **Hobbies**

Magic The Gathering Competitive play for 15 years

#### Volleyball

Up to 4 times a week for 6 years

# Go

Creation and management of a club in high school

#### **Favorite Games**

StarCraft 2 best rank: Master Magic The Gathering best rank: Top 100

HearthStone

best rank: Top 500

Outer Wilds Tunic Dark Souls

### **Soft Skills**

Critical thinker Autonomous Ambitious Empathetic Pragmatic

## **About Me**

I am looking for a skilled and passionate video game publisher.

I am an engineer and I am developing the Roquelike Tactical Deckbuilder Cards of the

Abyss.

# **Work Experience**

2024 - Today Cards of the Abyss Creation of a video game studio

Unity Developer

1 Year Development of a Tactical Roguelike Deckbuilder.

Model/view separation. Data-driven. C#. Shaders. VFX. Analytics and balancing. Midjourney. Project management. Git. Freelancer recruitment.

2023 - 2024 Quantic Dream AAA video game studio

Network C++ Gameplay Developer

1.5 Years Redesign and extension of game systems (Damage and DPS System, Health System, Entity Stats and Aggregators), Al development (Pathfinding, Locomotion, Abilities sequencing and cooldowns), multiplayer infrastructure with rollback and deterministic systems, Mind Control design (alternative controller, from FPS to RTS), optimizations, improvement of development standards, creation of statistics systems (Kill statistics, Weakness tags), Perforce P4V, Jira

2023 - Today Quantiq.io Medical Deep Learning and Time Series

Al Researcher

1.5 Months Deep Learning research to analyse cardiac data from video selfies. Research, DenseNet, Early-stopping, Cross-validation, Equal-sampling, Visualization, Pytorch, Numpy, Pandas, Matplotlib, Python

2021 - 2022 Cube Overflow Creating a gaming company

Unity Developer

1.5 Years The Netrunner Awaken1ng: developing a Hack'n'Dash steam game from design to deployment. Developing 50 levels, each with a unique mechanic, using a modular and procedural map generation algorithm. Hiring and collaborating with freelancers for sound and marketing. Writing an Al-related story. More details here: https://netrunner-awakening.com

2020 Antidot R&D Development Engineer

Python Developer

1 Year Working in a product knowledge platform company focusing on creating search engines for enterprise knowledge. ML Transformers, Naming Entity Recognition (NER), Relationship graphs, Textual data processing, Continuous Integration, Test Driven Development, Conditional Random Fields, Docker

Summer 2018 Immersive Factory Internship in a VR compagny

Unity Develope

3 Months Experiencing for 3 months the video game company workflow C#, Unity, Virtual Reality, Level Design, CI/CD, Unity Web Request

## **Education**

2018 - 2019 **DDJV** Degree in Video Game Development

Double Degree in Canada

1 Year University of Sherbrooke in Montréal

2016 - 2018 INP-ENSEEIHT Computer Science & Applied Mathematics Engineering School 2 Years National Polytechnic School of Electrotechnic, Electronics, Computing, Hydraulics and Telecommunications

2014 - 2016 MPSI/MP Pierre de Fermat Mathematics & Physics

2 Years Majoring in Computer Science

Preparatory Course

2011 - 2014 Toulouse Lautrec Scientific Diploma

3 Years With Honors

Secondary School

# **School Projects**

- Winter 2019 **3D Third Person Game** TPS asymetric online videogame Unreal Developer 4 Months Develop an entire video game with agile methods in a team of 7 persons C++, Unreal, Agile Methods, Object-Oriented Programming, Networking, Real-time systems, Symbolic AI (Squads), Data-Driven Gameplay
- Autumn 2018 AlBootCamp Game Al Programming Challenge C++ Developer 3 Months Experiencing and solving for 3 months all the issues of Symbolic Al in video games C++, Symbolic Al, Agile Methods, Pathfinding (with doors!), Cooperative Agents, 5ms constraint, Parallel systems
  - 2017 2018 **ENSEEIHT projects Multimedia** Coding in small teams Matlab Developer Over 1 Year Tensorial surfaces, Principal component analysis, Face Recognition, Denoising, Inpainting, Segmentation by classification, Variational Methods, Data Reduction, Object Detection, Image Recovery. Using Agile methodologies
- 2016 2017 **ENSEEIHT projects General** Coding in small teams Java Developer Over 1 Year Object-Oriented programming, Web Development, Digital Optimization, Probability and statistics, Differential Calculus, Linear Algebra, Parallel Systems, Graph Theory, Database. Using Scrum and Agile methodologies
  - July 2017 **IncubWeb** Internship in a Web Developing Company Web Developer 1 Month *HTML*, *CSS*, *PHP*
  - May 2017 **RogueLike Game** Leading and Managing a 6 persons team Java Developer 3 Months Java, Architecture Design, Procedural Level Generator
  - Oct. 2016 **Carbon Literacy Project** Raise carbon literacy awareness Online training 2 Weeks *Official certificate*

# **Personal Projects**

You can visit my website for more details: https://alexys.dussier.fr

- August 2019 **Standford ML Course** Online formation in Deep Learning Formation

  1 Month Neural Networks, Backpropagation, ConvNets, Localisation & Detection,
  Visualization, Recurent Neural Networks, Segmentation
- August 2019 **MIT Al Course** Online formation in Artificial Intelligence Formation

  1 Month Goal-Tree, Expert System, A\*, Minimax, KNN, Neural Networks, Genetic Algorithms, SVM, Boosting
  - July 2019 **Self-Learning Project** State-of-the art Machine Learning Formation 3 Months Reproduction of the AlphaZero algorithm from scratch C#, Python, Tensorflow, Numpy, Monte-Carlo-Tree-Search, UCB1, PUCB, Deep Neural Networks
  - June 2019 **Machine Learning Course** Online formation in Machine Learning Formation 1 Month *Python, Tensorflow, Deep Neural Networks, Convolutional Neural Networks, Recurent Neural Networks*
  - May 2019 **Google Cloud OnBoard** Formation in Cloud Computing Services Formation 1 Weekend *Machine Learning, Scalability, Cloud*
- March 2019 **Google Code Jam** Participating in about 10 Code Jams Coding Competition Lot of Weekends C++, Dynamic Programming, Knapsack problem, Optimizations, Bit shifting, Sliding window, Backtracking, Linked lists, Binary searchs
  - October 2018 **HadokeMDP** Reinforcement Learning AI on StreetFighter Bot Unity Developer 1 Weekend *Reinforcement Learning, Q-Learning, Unity* 
    - 2017 2019 **3 Game Jams** Designing, Developing, Not sleeping Unity Developer 3 Weekends *2D Game, Unity, 48h programming, Virtual Reality Game, Pair Programming*
  - Summer 2018 3D Parkour Game 3D platforming video game project

3 Months Complex movement gameplay system, Unity, Architecture Design, OOP

March 2018 Card Game Designing, Developing, Manufacturing
1 Month Deck Building Card Game, Testing, Balancing, Iterating

February 2017 Clicker Game Designing, Developing, Coding
1 Month Skinner effect, Pair Programming, Slick2D

2015-2017 Card Game Designing, Developing, Manufacturing
Variable Testing, Balancing, Iterating

2015 2D Parkour Video Game Designing, Developing, Coding
2 Months 2D Graphic Isometric Engine, C

2013 Icon Rush 2 Designing, Developing, Coding

Card Game Designer

2 Months My First Video Game!