

# GORDON MACSHANE

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## EDUCATION

**The Cooper Union for the Advancement of Science and Art**, New York, NY

Bachelor of Engineering in Electrical/Computer Engineering May 2018

Innovator Merit Half Tuition Scholarship, 2014-2018

**Selected courses:** Operating Systems, Machine Learning, Artificial Intelligence, Databases, Natural Language Processing, Neural Networks, Computer Graphics

## EXPERIENCE

***Backoffice Developer, Renaissance Technologies***

**Nov 2019-Now**

- o Created and designed git tool which generates weekly change reports with shell script
  - o Demonstrates accountability to independent auditors for SOC 1 compliance
- o Developed 15-18 innovative web-app pages using Wicket, Java, and SQL
  - o Built functionality to manage financial accounts and financial statements
  - o Incredibly nuanced data requires complex UIs and precise communication
- o Scripted many jobs that fetch and clean data from 3rd parties daily with shell & Java

***Backoffice Developer, J.P. Morgan - HighBridge Capital***

**June 2018-Sep 2019**

- o Developed critical functionality on Vue.js webapp with Java backend
- o Developed new app to calculate financial metrics for traders
  - o Processes trade history of entire business each day, spanning 20 years, and over 10,000 positions in less than a minute
  - o Written in Java, fills multiple SQL tables for different grains
- o Primary support for 5 applications spanning audits, accounting, and operations
  - o Experience bug-fixing Shell scripts, xml files, Python, and Java code
  - o Experience working with vendors and multiple departments

***Software Engineering Internship, Societe Generale***

**Summer 2017**

- o Coded regression tests for QA automation of trades on stock exchanges in Python
- o Automated documentation and execution of tests

***Computer Programmer, Argus Stock Research***

**2016 - 2017**

## PERSONAL PROJECTS

***Mouse Movement Bot, Java, ML***

**2020**

- o Developed algorithm to make human-like paths with a mouse to avoid bot detection
  - o Tuned algorithm with neural net trained on human and generated samples

***Video Abridger, Video Processing, FFMPEG, Java***

**2020**

- o Shortened drawn-out video by removing over 85% of low-value content
  - o Cut out all frames without dialogue, quality animation, or bright color-palette
  - o Detected animation by compressing each frame and summing pixel differences

***Twitter Authorship Attribution, NLP, Python***

**2018**

- o Used both Naive Bayes and Neural Networks
- o Achieved higher than 80% average accuracy for dataset of ten Twitter users

## PROGRAMMING LANGUAGES

Programming Languages: Java, SQL, Kotlin, Python, Vue.js, C#, C++, C, Matlab