# SCOTT JONES

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#### **EXPERIENCE**

# Stripe — Software Engineer Intern — EMEA Bank Transfers — London, UK

May - August 2022

- Used Ruby and Amazon S3 to add functionality to the Stripe dashboard allowing merchants to automatically generate bank transfer account ownership confirmation letters, freeing 2+ on-call hours per week.
- Produced technical scoping document for and implemented a deny-list for bank transfer refunds to prevent refunds to pooled accounts, saving 8+ on-call hours and preventing 3+ day refund delays.
- Used Ruby, Sorbet, MongoDB, Mocha test framework, and GitHub Enterprise within Stripe API monorepo.
- Completed code reviews for git pull-requests of other engineers on EMEA Bank Transfers.
- Contributed to OKR planning and Sprint planning, managed Jira tickets, worked with legal and design teams.
- Wrote and published a section on dashboard confirmation letters to the Stripe docs. [link]

## American Express — Software Engineer Intern — Remote, UK

June - August 2021

- Developed a configuration and metrics dashboard for internal payment network testing tool, allowing business representatives to reconfigure the tool in minutes instead of days, freeing engineers from configuration requests.
- Led development of a backend API using Java and the Spring Boot framework to access test data and change configurations by interfacing with PostgreSQL database and Consul cloud storage.
- Used React to create a data-driven frontend UI dashboard with Chart.JS graphs to visualise test data, filtering and grouping options, and an interface to easily configure existing testing tools.
- Deployed the application to OpenShift enterprise cloud using Docker and Jenkins.

## **EDUCATION**

# University of St Andrews

2019 - 2023

# MSci Computer Science

Graduating May 2023 and On-Track for First Class Honours

Placed on Deans' List for exemplary academic achievement (2020/21 and 2021/22)

#### **Relevant Modules:**

- Data Structures and Algorithms
- Operating Systems, Concurrency and Architecture
- Computational Complexity and Logic
- Artificial Intelligence

# **PROJECTS**

## MSci Dissertation — QEMU Native Shared Library Accelerator

September - December 2022

- Using C and C++ to extend existing research modifying QEMU emulator to automatically detect and run guest calls to shared libraries natively on the host system to increase performance.
- Tracking register liveness and parsing ELF files to automatically detect shared library calls.
- Protecting guest memory and catching unauthorised accesses to allow function pointers to detect function pointers as shared library call parameters and emulate these calls as normal.

# Federated Social Media Network — Software Engineering Team Project

September 2020 - May 2021

- Worked in a team to create a university-focused federated social media site with React and Django.
- Produced regular progress reports and met regularly with our supervisor.
- Used SCRUM methodology to develop in an agile way, organising regular SCRUM meetings remotely, building a backlog of user stories, planning flexible development sprint cycles, and regularly updating our supervisor.

# AI Shakspearean Discord Bots — StacsHack 2021 3rd Place Prize — [repository link]

- Led team to create multiple automated Discord Bots generating a novel Shakespeare-style play in real-time.
- Used Python, TensorFlow, and Discord API to train recurrent neural networks on Shakespeare for text generation.

#### LANGUAGES AND SKILLS

- Programming Languages: Java, Python, JavaScript, C, C++, Ruby, Haskell, Go, Prolog, x86 ASM
- Tools and Technologies: Git, React, NodeJS, Linux, Spring Boot, SQL, MongoDB, Amazon S3, Agile, SCRUM