— Oisín Thomas Canty —

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Irish Software Engineer experienced in full stack software and systems engineering.
I've helped design, build and maintain systems that have handled millions of requests and billions of dollars.

Stripe | Software Engineer .... (2022–Present)

- Launched PayPal payments integration in Europe, the #1 demanded feature in company history processing $xB yearly.

- Increased potential merchant adoption by 50x by migrating the UK Open Banking payment method from requiring a (rare) asynchronous Stripe integration to a standard Stripe synchronous integration.

- Led, designed and implemented migration of £XXXm yearly payment volume from one UK Open Banking payments partner to another. Improved conversion by 10%, bank authorization rates by 10% and reducing costs by 10%.

- Increased potential total-addressable market by 13% in Germany by designing and implementing the payments+refunds path for a white-labeled buy-now-pay-later invoicing payment method.

- Designed and built automatic reauthorizations of PayPal payments, increasing the authorization period by 116%, unlocking several large Top500 e-commerce merchants

- Worked cross-functionally daily with external payment partners and legal/accounting/compliance teams on any necessary approvals/follow-ups. Mentored new grad/hire engineers.

- On-call 24/7 for a week every 6 - 7 weeks and drove the creation of on-call processes, ops reviews and runbooks

NGINX/F5 | Software Engineer .... (2021–2022)

- Internship + engineer on NGINX Unit (unit.nginx.org), a multi-language web application server written in C

- Implemented HTTP IP Forwarding, Ruby C API lifecycle events and static content filtering support

- Built a multi platform command line API client in Go with SSH forwarding, an algorithm for fuzzy command path matching and a recursive descent parser for a custom dialect of JSON

University College Cork | BSc. CompSci .... (2018–2022)

- Graduated Class Rank #1 with 1st Class Honours.
- 3x College Scholar, 3x Teaching Assistant, Peer Support Leader. Entered with a 4yr All Ireland Scholarship.

Skills

C, C++, Go, Python, TypeScript, JavaScript, Java, Ruby
Node.js, FastAPI, GraphQL, gRPC, React, Vue
Postgres, MongoDB
Linux, Bash, Glt, Docker, Terraform, Ansible, GDB, IDA Pro
Splunk, SignalFX
Physical Servers, Networking

Projects / Open Source

WebPL bachelor thesis: canty.dev/fyp.pdf
Web-based Visual Programming Language platform in React/Node.js/Postgres that transpiles to Go and is executed in Docker containers as serverless functions.
Winner of Clearstream "Best Final Year Project" award

Team Project: github.com/cs3305-team-4/astratutor
Tutoring website with support for Stripe payments, video calls and screen-sharing via WebRTC.
React frontend, Go, Postgres backend.

github.com/UCCNetsoc/cloud
VM & Linux Containers management panel / API with automated configuration of reverse proxies.
Vue SPA with FastAPI backend.
OpenID Connect + Keycloak + LDAP + FreeIPA for auth

github.com/UCCNetsoc/NaC
Ansible for Proxmox infra + VM template generation

canty.dev/talks/rce.pdf
Talk I gave on C++ internals and reverse engineering

github.com/ocanty/remote_ptr
C++ smart pointer for custom mapping of reads/writes

github.com/ocanty/vimmy
Web-based assembler & bytecode interpreter for a 8080-like assembly language with projects & tutorials.
C WASM, TypeScript, Node.js, MongoDB
Won 4 eir/CoderDojo awards.

Volunteering

UCC Netsoc | Head SysAdmin .... (2018–2021)

- For my university computer society, I led and trained a team of 5 volunteers.

- We designed, built a cloud-like VM / container hosting service for students hosted on our own physical hardware in a data centre.

- Ran two Go / Python mentorship programs, gave talks teaching Linux & software engineering

- Won 'Best Social Society' 2 years in a row