Tom Lynch

Software Engineer with 5+ years of experience of developing scalable software and systems. Skilled in web development, data engineering and security.

Melbourne, Australia - GMT +11 hours

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Experience

WBP Rating Valuation Services
Software Engineer

Melbourne, Australia
(contract) Oct. 2020 - Feb. 2021

- Used machine learning and linear regressions via Scikit-learn, Pandas and Python to value commercial properties
- Reduced complexity and increased valuation accuracy by distilling 91% of commercial properties from 26 to 5 property subgroups
- Introduced a new factor to be applied to commercial property valuations based on the location using nearest neighbour search and normalisation of property age and size, improving valuation accuracy by over 25%

Huglo
Lead Software Engineer

Sydney, Australia (Remote)
Sep. 2019 - Aug. 2020

- Developed an electricity price comparison engine built with Django, to compare all plans Australia wide, saving customers an average of 15%
- Implemented a scraper to continuously scrape, parse and process over 7000 constantly updating energy plans using Python on AWS ECS and Fargate
- Managed software system design in consultation with the CEO, balancing reliability, maintainability and scalability
- Lead team in developing the final product, a React web-app

Mo Works Creative Agency
Cryptocurrency Advisor, Software Engineer, Growth Hacker

Melbourne, Australia
Oct. 2017 - Mar. 2019

- Guided cryptocurrency startups running ICOs through the marketing and raising process, resulting in over $20m in tokens sold for clients
- Proactively detected and mitigated hundreds of attempted scams before ICO launches by developing Node and Python Telegram bots
- Performed requirement analysis and designed the architecture for the Zukaz voucher app

Axxin - Biomedical Diagnostic Instruments
Software Test Engineer

Melbourne, Australia
Oct. 2016 - Feb. 2017

- Wrote and executed strict software verification and validation protocols to allow our medical diagnostic instruments to gain FDA (US) approval
- Identified software bug in calibration system causing intermittent incorrect test results on thousands of machines
- Conducted code reviews and suggested optimizations to the source code

Let's Talk Medical Research / University of Melbourne School of Medicine
Web Designer and Developer

Melbourne, Australia
Mar. 2016 - Aug. 2016

- Consulted with researchers and university staff to design and build web-app using AngularJS
- Connected web-app via API to a form backend platform to reduce unnecessary complexity

Personal Projects

Toms Telegram Bot Collection
Founder, Software Engineer

telegramubots.com
Aug. 2018 - present

- Built a collection of bots to reduce spam in large Telegram groups using Express and Node.js
- Scaled to > 2 million actions per month, monitoring groups with upwards of 50 million total users

Pentesting
Ethical Hacker

2017 - Present

- Found and exploited vulnerabilities in the AFL, Spintel and Quixxi with code and endpoint inspection using Chrome DevTools and Python scripts
- Followed a responsible disclosure approach with aforementioned organisations, proposing solutions resulting in vulnerabilities being patched

Technical Skills

Languages / Databases	Python, JavaScript, Java, LaTeX, SQL, PostgreSQL, CouchDB
Frameworks / Libraries / Tools	Django, Eleventy, React.js, Node.js, Express, Pandas, Metabase, Git
Infrastructure / Config	Linux, AWS, Docker, Glitch, Netlify

Honours & Awards

#2 post on Hacker News, Who won the Amstel Gold Race? Human error in photo-finishes *2021*. **Leaders in Communities Award**, University of Melbourne *2019*. **Winning Team**, Cluster and Cloud Computing - Twitter big data project *2017*. **World Champion - Track**, Cycle Messenger World Championships *2015*. **College Captain**, St Bernard's College *2010*. **Australian Defence Force Leadership Award**, St Bernard's College *2009*.

Education

ME, Master of Engineering (Software)
The University of Melbourne

Melbourne, Australia
2015 - 2019

BSc, Bachelor of Science (Mechanical Systems)
The University of Melbourne

Melbourne, Australia
2011 - 2014