Sam Young

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LinkedIn | GitHub | Portfolio Website

Experience

Communications Platforms Software Engineer APS 6 — Department of Home Affairs
Aug. 2022 – Present • 1 yr 2 mos

› Developed the following full stack web applications for a secure network to increase team efficiency:

- Communications Modem Manager: The application fixed 165+ errors between tracking platforms by intelligently highlighting discrepancies and remotely managing user access. *Utilised: Python, JavaScript, Flask, MySQL, HTML, CSS, Bootstrap, VMWare, Jira Service Management.*

- Asset Report Generator: Streamlined collection and presentation of physical asset data by a magnitude of 10. *Utilised: Python, TypeScript, Node, Express, React, MongoDB, Jira Service Management, Confluence*

› Migrated four major software platforms – directly involved in asset migrations, user onboarding, server configurations, automation scripts, LDAP integrations, certificates/firewalls and licensing. *Utilised: Python, Powershell, Jira Service Management, Confluence, VMWare, NiFi, Esri ArcGIS.*

› Managed two undergraduate interns. Oversaw the entire project cycle – generating project briefs, providing technical guidance, reviewing progress and delivering weekly feedback.

› System administrator for mobile, radio, camera and vehicle communications equipment. Certified installer and instructor of equipment handling. Responsible for setting up, provisioning, debugging and fixing equipment.

› Tightened network security through implementation of automated Active Directory user/admin auditing scripts. *Utilised: Powershell, Active Directory.*

Software Developer APS 5 — Department of Home Affairs
Jun. 2021 – Aug. 2022 • 1 yr 2 mos

› Technical representative for an inter-agency Virtual/Augmented Reality (VR/AR) project. Collaborated with domestic and international agencies to explore the integration of VR/AR technologies into government settings (e.g. digital twin cities; holoportation interviews; operational planning capabilities).

› Developed several secure applications to service a client base of 630 users, notably;

- Password Manager – The program reduced issue requests by 26% through automating and auditing common account actions. *Utilised: Python, JavaScript, Flask, MySQL, Active Directory, HTML, CSS, Bootstrap*

- Location Tracker – Mobile application for increased officer safety. *Utilised: Java, Android Studio, Kotlin*

› Constructed a homepage landing website from scratch for an operational team of 80+ users.

Technologist Graduate APS 4 — Attorney General's Department
Jun. 2020 – Jun. 2021 • 1 yr

› Built a semi-autonomous scraping tool to assist auditing message logs. The application significantly reduced administrative tasks the team had to undertake.

› Deployed machine learning models for an object detection application – utilised Python libraries and transfer learning techniques to accelerate existing team workflows.

› Researched and presented biometric analysis defeats to inform network security team on potential weaknesses in existing systems.

Engineering & Information Sciences Research Assistant — University of Wollongong
Nov. 2018 – Jun. 2020 • 1 yr

› Journal article lead author (2020) – Gesture Intention Framework for IR Device Teleoperation Using Novel PMG Soft Armband.

› Conference paper lead author (2019) – Pattern Recognition for Prosthetic Hand User's Intentions Using EMG Data and Machine Learning Techniques.

› Developed a gesture recognition framework, soft pneumatic/electro-myographic armband and infrared emulator device. Increased gesture intention prediction accuracy from 83% to 94.8% using ML.

Personal Projects

› Patented co-inventor of Gesture-Teleoperated PMG Soft Armband
  - Integrated thesis work with a 3D printed prosthetic hand to demonstrate the use of the armband/gesture recognition framework with transradial amputees.
› WordPix
  - Developed an original word/picture puzzle web browser game. *Utilises: Python, JavaScript, Flask, HTML/CSS.*
› Shmack!
  - Developed an original mind-puzzle mobile game. *Utilises C#, Unity, Custom Shaders.*
› Word Cloud Poster Art Generator
  - Created to automatically generate stylised poster art from a single text prompt and input picture. *Utilises: Wikipedia API, Pexels API, Python, OpenCV, PIL*
› Reverse engineer games
  - Reverse engineered the following applications without tutorials: Flappy Bird, Wordle, Pacman, Pong, 2048, Bloxorz, Tetris, Snake, Sudoku, Minesweeper, Spell Bee. *Utilises: Unity, C#, JavaScript, HTML, CSS, Java, Android Studio, Kotlin, Python, PyGame*
› Virtual experience program creator for future technologists.
  - Spearheaded the design and creation of a virtual experience program for future technologist graduates. Created a series of logic / tech-related puzzles of increasing difficulty and skillset utilisation.
› Digit Strength and Mobility Analysis Glove
  - Designed a glove for heart stroke victim rehabilitation. Quantitatively measures user grip strength progression and gives immediate visual feedback for observational diagnosis.

Education

University of Wollongong
Jan. 2016 – Jun. 2020

› Bachelor of Biomedical Engineering (Honours) (Scholar) (First Class)
› WAM: High Distinction 93.5 – highest in graduating cohort
› UOW Dean's Merit List
› Dean's Scholar, Engineering Scholars and Advanced Scholarship
› Engineering and Information Sciences Academic Achievement Scholarship
› UOWx Award: 500+ hours accreditation

Miscellaneous Courses
Jun. 2020 - Present

› Milestone Certified Integration Technician (MCIT)
› Milestone Certified Design Engineer (MCDE)
› CompTIA A+ Core 1
› Harvard Computer Science Course CS50x
› Associate Android Developer Certification
› Workspace One DDLS

Skills

Software		Hard Skills	Soft Skills
Proficient	*Familiar*	› Full-stack application development	› Communication
› Python / Flask	› C#	› API development	› Teamwork
› JavaScript	› React	› Data analysis	› Problem solving
› Node / Express	› Java	› Telecommunications admin	› Interpersonal skills
› HTML / CSS	› Powershell	› Biomedical device development	› Adaptability
› MySQL	› Bootstrap	› Pattern recognition/analysis	› Work ethic
› Jira Assets	› Esri ArcGIS		› Initiative
› Confluence	› VMware		
› Unity	› Android Studio		
› Milestone	› TypeScript		
› MongoDB			

References available on request