

# Why our beauty and fashion industries are crying out for STEM grads

By **Cassie Steel** - November 3, 2020



*How's this for future-focused?! 32% of retailers are planning to develop AR or VR for their brand. Image: Shutterstock*

**It ain't all tweezing, cutting, colouring and styling! The beauty and fashion industries are crying out for computer science grads who are fluent in code, innovation and IT.**

Passionate about fashion and beauty? Being awesome at STEM doesn't necessarily sentence you to life behind a laptop solving snoozy IT probs. These days beauty and fashion brands are using everything from eCommerce to Artificial Intelligence (AI), Augmented Reality (AR) and data analytics to increase efficiency and keep their customers engaged – increasing the employment opportunities for computer science grads looking for out-of-the box tech roles.

Here, we check out some of the biggest trends changing the face of beauty and fashion.

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## eCommerce

With fashion and beauty accounting for one third of the world's online purchases, it's not surprising that the industry's eCommerce sector is on the rise. Retail businesses are rapidly transitioning from physical stores to digital platforms, with increasing numbers of STEM-qualified grads needed to work on User Experience (UX) projects such as online store, app and PayPal capabilities.

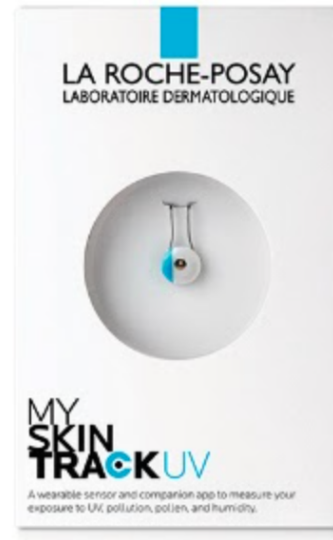
## Augmented reality

Ever went to buy something online but wondered how it would actually look on you? Thanks to AI and AR capabilities, trying before you (digitally) buy doesn't have to mean ordering two sizes and sending one back. Computer vision- based reconstruction technology allows customers to pick an item – say, a shade of foundation – and log into a website – which matches up their skin shade and desired product. Same thing goes in-store too – with some brands making use of virtual mirrors, where an outfit is projected onto a customer when they simply scan its barcode.



## AI and machine learning

From design to manufacturing, supply chain and marketing, AI and machine learning technologies have revolutionised the fashion and beauty-sphere. AI-enabled robots are now stitching fabrics and detecting faults, while automated logistics and supply chain processes are ensuring faster – and more direct – delivery. But the coolest thing about fashion and beauty retail 2.0? Machine learning algorithms allowing shop-the-look capabilities! Simply scan a pic of an outfit – and get hit with links of similar products and prices.



*The skincare brand La Roche-Posay has developed the first battery-free wearable electronic sensor – 'My Skin Track UV' – to measure a customer's exposure to UV, pollution, humidity and pollen.*

## Data science

Fashion and beauty brands are now employing data scientists to literally scroll through clothes and make-up all day. Yep, the maths-meets-tech professionals mine data on consumer behavior. Think: the products they're browsing and what they're searching will detect trends, before they're even a thing.

### Tech + beauty/fashion study:

- Tech+Beauty+fashion study Bachelor of Computer Science, [RMIT](#)
- Bachelor of Information Technology/Virtual Reality, [Deakin University](#)
- Diploma of Digital Media Technologies, [TAFE NSW](#)
- Master of Creative Technologies, [AUT](#)

### Tech + beauty/fashion jobs:

- eCommerce manager: AU\$50K–\$116K, NZ\$40K–\$140K
- Application developer: AU\$54K–\$103K, NZ\$48K–\$82K
- Software engineer: AU\$56K–\$111K, NZ\$51K–\$97K\*







\*Source: salaries according to [payscale.com](#)



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As Refraction’s digital editor, Cassie Steel spends her days researching robots and stalking famous scientists on Twitter.

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