

# JAN SZCZEKULSKI

✉ [email](#) 🌐 [website](#)  [linkedin](#)  [github](#)

## Education

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### UC San Diego

*Master of Science in Computer Science*

**Sept. 2023 – Present**

*San Diego, USA*

### University of Liverpool

*BSc (honours) in Computer Science and Mathematics*

**Sept. 2017 – May 2020**

*Liverpool, UK*

## Experience

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### Amazon

*Software Engineer*

**June 2024 – Sept. 2023**

*Seattle, USA*

### The Hut Group

*Software Engineer*

**Dec. 2021 – Aug. 2023**

*Manchester, UK*

- I led the experiment-able widgets project, which enabled the company to quickly and dynamically test changes to website's UI via A/B testing, leading to 60 new effortless experiments and estimated 3% increase in YoY revenue
- As a part of this project, I integrated an internal widget-serving backend together with a/b testing backend, as well as page-serving service
- Brought up to speed and re-factored outdated internal experiment backend, together with database schema
- Altered multiple internal frontends (written in AngularJS and React) to support new experiment features
- Dockerized and Kubernetesized internal backends, frontends and data processing pipelines

### The Hut Group

*Graduate Data Scientist*

**Sept. 2020 – Dec. 2021**

*Manchester, UK*

- Improved and automated manual tools surrounding internal A/B testing platform such as duration estimation, results generation or metrics addition. Improved and set up acceptance and integration testing for multiple components, and improved robustness of CI/CD pipelines.
- Built data pipelines from scratch, including setting up virtual machines, periodic scripts and CI/CD utilising Jenkins and github actions
- Took responsibility for the timely update and patch management of virtual machines to mitigate critical bugs and maintain system integrity

### Lazarski University

*Research Collaborator*

**June 2021 – Present**

*Warsaw, Poland*

- Conducted a thorough data analysis of previous treatments to identify the most effective strategy for birthmark removal. Additionally, employed Convolutional Neural Networks (CNNs) alongside transfer learning techniques to forecast the outcomes of patient treatments using pre-operation photographs.
- Utilizing CycleGAN in conjunction with Differential Augmentation, we developed a model capable of transforming images of patients' faces into healthy counterparts. This innovative approach allows patients to visualize potential outcomes of their facial appearance following treatment.

### UCSD - Cognitive Robotics Laboratory

*Graduate Research Assistant*

**September 2023 – Present**

*San Diego, USA*

- I'm in the process of creating a novel algorithm for planning the re-arrangement of items on a tabletop, as a component of a larger project focused on home robotics.

## Selected Projects

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### Monet-me-this web app | *React, SpringBoot, Python, PyTorch, Linux*

**November 2022**

- Implemented a cycleGAN AI model that turns a simple image into a painting that closely resembles the style of the master painters such as Monet or Van Gogh.
- I developed and deployed a full-stack web application game where players must determine which images were generated by a famous painters and which by the AI.

## Technical Skills

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**Languages:** Java, Go, JavaScript, SQL, GraphQL, Python, Shell, HTML/CSS

**Frameworks:** SpringBoot, Django, React, AngularJS, Pandas, Numpy, Matplotlib, PyTorch

**Technologies/Tools:** Docker, Jenkins, Kubernetes, Github actions, Latex

## Publications

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### Journal Articles & Conference Proceedings

- Anna Mataczynska, Michal Paprocki, **Jan Szczekulski** and Bartlomiej Kwiek. *Laser Therapy of Cutis Marmorata Telangiectatica Congenita Vascular Malformation*. **Dermato**, volume 29 2023
- **Jan Szczekulski**, Michal Paprocki, Ryan Butler, Anna Mataczynska and Bartlomiej Kwiek. *Investigating the effectiveness of convolutional neural networks in predicting the efficacy rate of treating port-wine stain birthmark*. **Journal of Investigative Dermatology**, volume 143 2023
- Michal Paprocki, Anna Mataczynska, **Jan Szczekulski** and Bartlomiej Kwiek. *The effectiveness of cutis marmorata telangiectatica congenita laser therapy*. **Journal of Investigative Dermatology**, volume 143 2023
- Michal Paprocki, Anna Mataczynska, **Jan Szczekulski**, and Bartlomiej Kwiek. *Long term treatment of pws might require a new dual therapy consisting of induction and maintenance*. In 41st ASLMS Annual Conference on Energy Based Medicine& Science, in San Diego California, USA.

### Relevant Coursework

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| • Graduate Networks Systems       | • Recommendation Systems                        |
| • Object Oriented Programming     | • Data Mining and Visualisation                 |
| • Intro to Programming            | • Statistics, Linear Algebra & Calculus courses |
| • Robotics and Autonomous Systems | • Search & Optimization                         |
| • Computer Vision I               |   |