

Titus Ebbecke

📍 Würzburg, Bavaria, Germany ✉ titus@berkeley.edu 🌐 www.titusebbecke.com

SUMMARY

Research Topics: Human-Computer-Interaction, Machine Learning, Robotics, Generative Art, Interface Design & Development

EDUCATION

Master of Design (Candidate)

University of California, Berkeley · Berkeley, California · 2021

Bachelors of Arts in Design (With Distinction)

University of Applied Sciences Würzburg-Schweinfurt, Faculty of Design · Würzburg, Bavaria · August 2019 · GPA 3.8/4.0

RELEVANT EXPERIENCE

Design Specialist

Helmholtz Institute for RNA-based Infection Research

March 2020 – Now, Würzburg

Developing novel visualization software to accelerate the discovery & exploration of RNA in pathogens. Supervisor: Jun. Prof. Lars Barquist & Prof. Jörg Vogel. Improving analysis and enrichment of large datasets (RNA-Seq, Grad-Seq, HTS-results) with Vue.js, D3.js, Python, Pandas, Flask.

Bachelor Student

KUKA Robotics

June 2019 – July 2019, Augsburg

Developed novel raster-image to CNC-paths algorithm. Assisted by head of corporate research, Dr. Rainer Bischoff. Organized funds and a partnership with KUKA to create my bachelor thesis consisting of a KUKA industrial robot painting GAN generated artworks on canvas. Developed intuitive and safe CLI-tool for demos at fairs. Demonstrated full project in September to KUKA R&D and marketing.

UI/UX Designer

Volkswagen AG

September 2017 – March 2018, Berlin

Developed high-fidelity prototypes for a central app concept serving a fleet of well over a million cars in Framer/CoffeeScript. Prototypes were presented to board of directors. Implemented chat bots and similar predictive assistants. Conceptualized & designed UX flows for a variety of projects. Created UI and corporate design guidelines.

UI Designer

Just Intelligence / opcy GmbH

February 2015 – March 2016, Hamburg

Conceptualized new UI in Photoshop, integrated it with WinForms in .NET application. Designed two 4x5x4m exhibition stands used at international software fairs.

UI/UX Designer, Web Developer, Cinematographer

Freelancer

2013 – March 2020, Germany

Designed & developed UI's and Frontends for a large variety of desktop and mobile applications for up to 20,000 users. Creation of several websites for clients. Directed/shot movies for advertisements/student films across Germany with team sizes of up to 25 people.

SELECTED COURSEWORK

Bachelor Thesis ("Artistic Creativity as a Property of Human and Artificial Intelligence")

KUKA Robot Language, Python (OpenCV, NumPy), WorkVisual, Generative Adversarial Networks, Soldering

4x4x2m installation. An autonomous industrial robot, painting AI generated artworks without human supervision. Robot painted for >10 hours over a two day exhibition.

Interactive Media (Topic: Artificial Intelligence)

Python, PS, GAN's, TensorFlow, PowerShell, Linux (Bash), Git

Trained GAN's on creating novel non-human art. Setup & benchmarked GAN's and computing pipelines (VM's/Jupyter Notebooks). Dataset of 21,000 images, organized with PowerShell, optimized with self-developed face-detection-based image-cropper (Python). Trained for >100 hours on VM's with NVIDIA V100.

Interface Design (Topic: Climate Change)

Java, Photoshop, Motion Interpolation Systems

Created 4x2x3m interactive sculpture displaying change of north-polar ice cap. Scraped NASA/NSIDC satellite data and interpolated it with decent geometric accuracy. Constructed metaphor-based TUI to bring scientific methods & findings closer to 50-100 exhibition visitors.

SKILLS

Robotics: KUKA Robot Language, Installation & Programming of KUKA R1420 w. KRC 4, KRL-Ethernet, WorkVisual

Programming: Python (OpenCV, NumPy, Pandas), JavaScript (Vue.js), Linux/Unix Shell, Git, Processing (Java), HTML/CSS, AWS & GCP, Rapid Prototyping w. Framer (CoffeeScript), TensorFlow (Beginner)

Design: Adobe CC (9+ years experience in: Photoshop, After Effects, InDesign, Premiere, Illustrator), Xd, Sketch, Digital Illustration (Wacom)

3D: Cinema 4D, 3DS Max, Photorealistic Rendering w. Corona & Vray & Quixel Megascans/Bridge/Mixer, Unity

Hardware: Soldering, Sewing & Tailoring

Cinematography: DaVinci Resolve, Operating Blackmagic Ursa 4K & BMCC & BMPC, Sony FS-Systems, Canon C-Series, Proficient in 4K RAW Workflow/Color Grading