

# Jacob Jörgens

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## Education

Bachelor's Degree in Physics from the University of Chicago

October 2017-June 2021

## Experience

### Joergens Design, LLC ([joergens.design](http://joergens.design))

New York, New York

Founder

August 2024-Current

- Built a business around a 3D parametric jewelry configurator I developed for novel customization

### Freelance Projects, Computational Designer

February 2023-Current

- Created model for architecture firm, SOM, to optimize gridshells towards stress-curvature alignment
- Developed a tool to explore the optimal floor plan layouts of a mass timber building typology
- Coded an AR experience with Austin Creative Tech for a retail clothing company

### The University of Chicago

Chicago, Illinois

Researcher

June 2018-February 2023

- Redesigned the ICOS instrument in Prof. Moyer's atmospheric physics group to study cloud formation
- Identified underlying physics failures in the BEAM carbon emulator for social cost of carbon research
- Pushed commercialization of non-axial ICOS technology with Ben Clouser via NSF I-Corps

### 57th Street Design ([57stdesign.com](http://57stdesign.com))

Chicago, Illinois

Computational Modeler and Carpenter

March-October 2021

- Coded a parametric model of a mass timber building typology in ghPython/Rhino
- Prototyped a mass timber floor-cassette module and built hundreds of furniture pieces by hand

### Environmental Research Group ([enviroresearchgroup.github.io/erg](https://enviroresearchgroup.github.io/erg))

Chicago, Illinois

Board Member/Steering Committee

September 2018-June 2021

- Led a team to create building energy, air quality, and agent-based traffic models with open-source data

### Uncommissioned Design

Chicago, Illinois

Co-Founder

January 2019-September 2020

- Awarded \$10K grant through the Polsky Accelerator to develop parametric furniture design startup

### Watchtower Robotics

Boston, Massachusetts

Engineer

June-September 2019

- Designed parts and processes for soft-robots built to map municipal water pipes and inspect leaks
- Built a 3D gel-suspension printer at the Autodesk Technology Center

### Vertical Farming

New York, New York

Engineer/Farmer

July 2016-September 2017

- Engineered automated sensors using IoT devices for Verticulture and Farm.One ([www.farm.one](http://www.farm.one))
- Designed and built a fully-automated aeroponic green wall for a kindergarten classroom in NYC

## Skills

### Software/Hardware

Rhino, Grasshopper, Fusion360, Eagle, ESP32, RaspberryPi

### Programming

Python, C, Java, R, HTML/CSS, Three.js, Next.js, AWS, React

### Interesting Side Jobs

Landscaper at Highview Creations, Cheesemonger at Rubiner's, Playground Designer/Builder at Common Worlds, Furniture Designer/Builder, Cook at Quartier Libre jazz bar, Cancer Researcher at MSKCC (<https://doi.org/10.1084/jem.20150524>)

### Languages

German, Intermediate French