

# ARTUR KASHPERSKIY

## Software Engineer

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## EXPERIENCE

### Software Engineer Intern

#### Autodesk

June 2021 – September 2021 San Rafael, CA

- Worked with Profile team to build front end for new landing page for when users first hit profile.autodesk.com (to manage a users profile).
- Worked with designers to build a few reusable React components and microfrontend that supports fast loading of the new landing page. Learned JS technologies for localization, GraphQL queries and microfrontend routing.

### Software Engineer Intern

#### Valravn Capital

January 2021 – March 2021 NY, Remote

- Helped build up new infrastructure and helped team with moving some fundamental macroeconomic data fetching processes for research purpose to new Airflow infrastructure to help reduce costs spent on AWS.
- Built an experimental full stack fintech web application for optimizing and simulating many different portfolios with different exposure options using plotly Dash.

### Software Engineer Intern

#### Heali.ai

July 2019 – October 2019 Santa Monica, CA

- Built APIs with Express.js and serverless to support feature for mobile app showing diet and nutrition information when scanning food product barcodes with camera.
- Built front end functionality for food product barcode scanning with Swift native OCR plugins in React Native App for nutrition app.
- Added some new infrastructure for bug reporting and added a shake to bug report feature to the app.

### Software Engineer Intern

#### Nipun Capital

June 2017 – September 2017 Foster City, CA

- Built up data pipeline for alpha generation and web scraping sources in emerging markets (exchange sites) using python and Apache Airflow (one job required to break old text captchas using CNNs). Moved old alpha generation cronjobs to new Airflow infrastructure.
- Small NLP research project investigating sentiment analysis of conference call transcripts (financial sentiment dictionary and word2vec).

### Software Engineer Intern

#### Minted

June 2016 – August 2016 San Francisco, CA

- Wrote unit/integration tests improving coverage of marketing insert logic in Minted fulfillment state machine and fixed bugs.
- Built an API endpoint and front end for an analytics dashboard used as a productivity tracking tool for our stationary design auditing team.

## LIFE PHILOSOPHY

*"Break the thing so you can unbreak the thing"*

## SKILLS

Python JavaScript Java C C++  
C# MATLAB React GraphQL  
React Native Docker Kubernetes  
Unreal Engine Unity MongoDB  
AWS EC2/API Gateway/Lambda/S3  
MariaDB Redis Memcached

## PROJECTS

### demix

- A web tool which allowed music producers to upload an audio file and receive vocals and instrumental individually separated from the file. This project saved music producers time and effort by giving them a ml-based approach to remix songs instead of manual equalisation. Launched to production using AWS EC2 and docker for deployment for 2 months gaining 8000 WAU (had to shutdown due to high cost). Stack: python Flask server, GatsbyJS frontend, tensorflow.
- <https://github.com/sm5art/demix>
- <https://github.com/sm5art/demix-frontend>

### genetic pong

- Forked a friend's pong game written in the python package pygame from his GitHub and wrote a genetic algorithm from scratch on top in python that used an unsupervised fitness heuristic to optimise for the fittest pong "brain". The training sequence took roughly 30 minutes or 30 generations to converge and resulted in an unbeatable AI player.
- YouTube Training Demo
- <https://github.com/sm5art/genetic-pong>

## EDUCATION

### B.S. in Applied Physics

#### University of Washington

Sept 2017 – August 2022

Notable coursework: Algorithms and Data Structures, Vector Calculus/Complex Analysis, Probability I, Artificial Intelligence, MATLAB for Numerical Analysis, Quantum Mechanics, Digital/Analog Electronics