

# Artur Kashperskiy

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## Full-Stack Software Engineer



<https://sm5art.github.io>  
<https://github.com/sm5art>

### EXPERIENCE

**Lead Full Stack Engineer**, [Heali.ai](#); Santa Monica, CA  
June 2019 - October 2019

- Setup continuous integration and deployment for react native mobile beta app and server.
- Integrated Phabricator (bug-tracking software) into backend such that beta testers could have direct connection to engineering.
- Built the frontend part of a feature which allowed for a user to scan a product barcode with their phone and display nutrition information about that food product and whether it complies with their chosen diet.
- Built bug reporting into the app which takes analytics information of the device to help engineers debug. Wrote docs on the developer-impacting features above.

**Quant. Finance Research Intern**, [Nipun Capital](#); Foster City, CA  
June 2017 - Sept 2017

- Migrated codebase from python 2.7 to 3.6 and created deployment scripts which improved dependency management. This also improved our freedom in more modern libraries such as Keras.
- Web scraped asian equities market data sources using python scripts in cron for financial signal using python and back tested using internal tools. Broke a CAPTCHA w/ convolutional neural networks in order to do so for one site.
- Researched numeric methods of computing sentiment from text transcripts of conference calls in hopes to produce signal that back tested positive (word2vec).

**Software Engineer Intern**, [Minted](#); San Francisco, CA  
June 2016 - August 2016

Fullfillment Team

- Used Google APIs to implement address validation on the client side to help reduce failed orders.
- Built an analytics dashboard which would use data of design approvals for each designer to help track their progress and keep them motivated to maintain certain goals for that work day.
- Gained familiarity with the design and maintenance of state machines in a MySQL database managed by a python state machine through bug fixes and production support.

### SKILLS

#### LANGUAGES

Python, Javascript, Java, C, C#, Go, MATLAB

#### TECHNOLOGIES

React, Redux, Tensorflow, Keras, MySQL, Cassandra, MariaDB, MongoDB, Redis, Memcached, Nginx, Apache, Gatsby (CMS), Spark, Unity

#### TOOLS

Git, Vagrant, Heroku, AWS, Azure, Netlify, Docker

### EDUCATION

**BS Applied Physics at [University of Washington](#)**

Seattle, WA '2021

GPA: 3.3

Notable Coursework: Linear/Matrix Algebra, Numerical Analysis, Mechanics, Programming I, II, Algorithms and Data Structures, Differential Equations, Vector Calculus, Intro to Complex Analysis, Statistics, Probability I, Artificial Intelligence, MATLAB for Numerical Analysis

### PROJECTS

#### genetic pong

A friend of mine at university wrote a python version of the traditional pong game and I challenged myself to write an AI for it (cred. <https://github.com/Sarthak-Rijal/2d-Game>). Implemented a genetic unsupervised learning algorithm in python in the context of "genes" that represent the pong AI brain which was modelled with matrix algebra. The result was a training sequence that would learn to play pong better than humans in ~ 20 generations or 15 minutes of playing the game unsupervised. The system was adaptive to varied conditions i.e. reducing the size of the paddle by half didn't change convergence by a significant amount.

<https://www.youtube.com/watch?v=mFOkdGye7yY>

<https://github.com/sm5art/genetic-pong>