

# Mitchell Vitez

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## EXPERIENCE

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**Hylomorphic Software Consultant** Sept 2017–Present

- Created custom machine learning applications in Haskell and TensorFlow
- Built data mining software engine for text and image transformations
- Wrote tech blog on functional programming and machine learning pipelines

**Edible Software Consultant** Summer 2017

- Architected machine learning pipeline for classifying food items
- Reduced app overhead by 100,000+ requests per month with Bloom filter
- More than doubled data ingestion workflow speed by automating process
- Gave tech talk on functional programming and composability

**Armor Health Software Consultant** Dec 2016–July 2017

- Built home medical self-care app from scratch for client on deadline
- Used Elm and Haskell (Yesod) to eliminate runtime errors in the full stack

**BookBub Software Engineering Intern** Summer 2016

- Built Partner Dashboard modules (Rails/React components) for authors and publishers to manage their accounts, view statistics, etc.
- Gave introductory tech talk on functional programming with Haskell

**UM Central Student Government Webmaster** Feb 2015–Dec 2016

- Managed maintenance tasks for Drupal site on LAMP stack in AFS
- Created automatic Airbus schedule format parser and converter in Haskell
- Completed responsive redesign for improved accessibility on mobile devices

**Answers Software Engineering Intern in Security** Summer 2015

- Patched hundreds of potential vulnerabilities in sizable pre-existing applications while on security team (mostly JavaScript bugs, XSS, CSRF)
- Developed system to flag statistically suspicious URL redirects

**Vaultd Lead Developer** Nov 2014–June 2015

- Involved with startup business decisions and logistics from concept to completion with small team, built website, profitable after one season

**Feng Lab Bioinformatics Research Assistant** Sept 2014–Apr 2015

- Researched prostate cancer genomics using lncRNA data (multi-gigabyte)
- Used R, Bowtie, TopHat, Bash for large dataset analysis on Flux HPC cluster

**S. R. Clarke Inc. Contracted Software Engineer** Summer 2014

- Designed Android app for client, integrated search with existing database

## ACADEMICS

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**University of Michigan** 2013–2017

- Study abroad, Hong Kong University of Science and Technology
- President of Michigan Hackers 2015–16

## LANGUAGES

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- Haskell
- Elm
- Python
- JavaScript
- Ruby
- C/C++
- SQL

## TOOLS AND PLATFORMS

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- Android
- iOS
- Unity3D
- Blender

## SIDE PROJECTS

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**Descent** 2017

- Data analysis app built with GHCJS, chart-diagrams library
- Uses Haskell TensorFlow bindings for basic ML tasks

**Raspi React** 2016

- Built hardware and software game for testing reaction time

**Superhero Menu** 2015

- Created Flask and Angular menu app
- Implemented searching, styling, and filtering functionality

**Wolverine CuiZine** 2014

- Complete site redesign with better images and typography

**Disasteroids** 2013

- Won first place, all categories at Ann Arbor Oculus Rift Hackathon
- Made virtual reality asteroid mining game
- Led five-person team