

William Karnavas

Software Engineer

Creative, upbeat Software Engineer with over 7 years of web service development, IoT, and automated test experience.

Contact Information

Raleigh, NC 27613 | william.karnavas@gmail.com | <http://williamkarnavas.com>
980-307-1642 | <http://github.com/FenceFoil> | <http://linkedin.com/in/WilliamKarnavas>

Skills

Java, SpringBoot, Maven, JUnit, JAssert, Mockito
Python, Flask, FastAPI, Pytest
SQLite, PostgreSQL, MongoDB
OpenAPI 3.0 / Swagger, Microservices
Docker, Linux, Bash, SSH
JavaScript, Vue.js, npm, yarn, HTML, CSS, Alpine.js
Gephi, Image Classifiers, Large Language Models
Git, Jira, Jenkins, JMeter

Work Experience

Toshiba Global Commerce Solutions, North Carolina | Software Engineer | 08/2018 – Present

- Productized 7-microservice retail AI IoT prototype using Java, SpringBoot, and OpenAPI 3.0 on 8 engineer team.
- Ruggedized single-customer prototype solution to sell and operate for many customers at 10k+ edge node scale.
- Expanded automation test usage from under 50% unit test coverage to >95% unit and integration test coverage as number of services doubled in sustained effort as part of feature work.
- Gathered requirements continuously with stakeholders, installers, and integrators to achieve consistent on-time delivery.
- Led 3 interns on project to create data analysis and visualization tool in Python and PyInstaller to speed solution deployment by multiple months for each new customer.
- Created automated typesetting system for generating several PDF manuals of 40 to 100 pages from markdown using Python and Paged.js which was soon adopted by software division beyond our team.
- Enabled simultaneous feature design across backend and frontend using OpenAPI specs and Python + SQLite mocks to communicate backend design to frontend developers vividly.

Honeywell Smart Energy (Through EASi), North Carolina | IoT QA Engineer | 07/2017 – 08/2018

- Wrote automated tests using Python and Pytest for IoT smart electric meters, enabling daily regression tests and faster delivery of product.
- Expanded support of proprietary Python test APIs to more hardware and added exceptions to indicate failures clearly, speeding diagnosis and problem solving.
- Designed Python and wxWidgets control panel GUI to improve UX of operating relay boards for test equipment.
- Built RGB LED salt crystal lamp to make when a workflow-critical spreadsheet was locked in SVN instantly observable to entire team of 15 testers at once.

Education

Bachelor of Science, Computer Engineering, Graduation Year 2017
University of North Carolina at Charlotte

Projects

18 Game Jams: Jan 2016 – March 2024

- Created variety of games, usually group participation games or interactive fiction, in a hackathon setting.
- Team sizes from solo up to several people.
- Recent games made as single-page webapps (SPAs).
- Example titles include “Find Real Humans Near You”, “You Wouldn’t Copy a Move”, and “[Make 11 Fish](#)”.

MineTunes: March 2012 – December 2013

- Wrote Minecraft video game mod in Java, [hosted on GitHub](#), updated across 12 versions of game code.
- Used variety of software MIDI synthesizers to play JFugue musical notation written on signposts and books.
- Encouraged feedback and wrote in features suggested on the [Minecraft Forum thread](#).
- Early participant on Mojang Jira, submitting [MC-81](#), [MC-154](#), and [MC-2902](#) with thorough supporting info.