Kenneth (Page) Swanson

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Professional programmer with experience in production software for a .NET ecosystem with C#, MS-Sql, and ES5/ES6. As of today: teaching coding locally, renewing personal interest in C through independent work, freelancing with ES6 using a functional approach, and learning Rust via a sequencer clone project. Native English speaker learning German (basic competency).

Education

Georgia Institute of Technology

05 / 2017 **B.S. Computer Engineering**, GPA : 3.5 / 4.0, ECE Opportunity Research Scholar

Experience

Software Developer in Residence / NHFPL - New Haven, Ct

05 / 2020 → Present **Serves as a community reference** for learning programming at the library. Sessions on a bi-weekly basis emphasizing core web technologies as an entry point to coding. Holds weekly office hours for help with programming of all kinds (JavaScript, HTML, CSS)

Introduced concepts in audio software through graphical programming, creating instruments for performance, composition, and sound processing (PureData)

Lead a database survey series where participants followed tutorials on query building, understanding schema, and finally building and running a micro database server (SQLite, deno)

Full-stack Software Engineer / Abrigo - Remote

09 / 2017 → 11/2021 **Developed applications for large data transfer** alongside a team of 10 engineers, product managers, and QA to enable a rapid and stable financial import pathway (Agile w/ Jira, C#, .NETStandard)

Provided hourly support for client-facing project managers, responding to service requirements for over one thousand financial institutions across the US, with extensive assistance during the 2020 national SBA disbursement period for institutions providing loans at the outset of the COVID-19 pandemic, aiding in the pipeline for subscribers to service more than 1 million in funds

Participated in a frontend initiative to introduce resource sharing across teams, build process improvements, and a contemporary frontend workflow (Vue.js)

Scaled a document import service to onboard client image repositories with existing financials. Incorporated entity layer for import transactions, unit tests, task logging with line-item feedback. Added an avenue for internal document distribution to customer portals for fast advisory feedback (NHibernate, LINQ, SQL, Moq)

Engineered a guided walkthrough by learning component architectures for a modular onboarding interface. Included widgets for parsing initial extracts to generate mappings, check data integrity, and poll services to suggest new configurations. Enabled a subscription pathway with greater agency for the financial institution and inspired a series of similar initiatives (AngularJS, components)

Programming Systems Teaching Assistant / Georgia Institute of Technology - Atlanta, Ga

09 / 2016 → 05 / 2017 **Assisted Sophomore programmers** with algorithm development, data structures, and general concepts in theory and design (C, MIPS Assembly)

Product & Test Engineering Intern / Texas Instruments - Dallas, Tx

05 / 2016 → 08 / 2016 **Designed an internal web portal** to process and archive data from a test device document. Built a text parser to support decision trees and report creation for a team of 5 engineers (Python)

Experimented with request mocking and included form sanitization and server-side input type expectations (Promise, Requests, regex)

Projects

Enmossed.org Static Website

04 / 2021 → 06 / 2021 **Collaborated to create a new home** for the Enmossed recording label. Working from a design draft, collaborated to produce a site for resources to discover the recordings produced by the label and information on releases. Using a JSON schema, the site maintainer modifies a single static document consumed by a series of components implemented as functional groups. Explored media query techniques to create a consistent experience across screens, mobile or otherwise (ES6, lit-html, Web Components)

TOVA - A Responsive Musical Synthesizer

12 / 2016 → 05 / 2017 **Prototyped a holistic music synthesis device** which responded to audio and notes with a voice selection and melodic phrase. Contributed an audio feature pipeline based on the chromatic spectrum for input analysis (Python, librosa, TensorFlow)

Sub 1 Kbps Speech Coder

03 / 2017 → 04 / 2017 **Implemented a 996 bps speech coder** while maintaining intelligible speech and speaker fingerprint. Constructed architecture with elements of LPC, codebook vector quantization and pulse excitation in MELP (MATLAB)

Guthman-Moog Musical Instrument Competition

2015, 2016, 2017 **3-time participant and finalist** in 2015 with an IR emitter PVC slide instrument and in 2016 with a light-based breath transducer to create a wind controller for the Moog Werkstatt synthesizer