

# Kenny Bean

## Computer Science Professional

### Experience

#### ➤ Validation Engineering Intern

September, 2016-Present

Autoliv-Nissin Brake Systems, Southfield, MI

- Created hardware in the loop (HIL) set ups.
- Ran multiple kinds of tests based on specifications given by engineers.
- Wrote data visualization/report generation software for the HIL in Matlab's App Designer.
- Worked in a CarSim and dSpace Environment.
- Modified the dSPACE environment to meet the specifications given by algorithm engineer.
- Created temperature and current gauge to prevent damage to the ECU on HIL bench during testing.

### Education

#### ➤ Bachelors in Science, 2014-2018, Software Engineering, University of Michigan-Dearborn, MI

- **GPA:** 3.4
- **Preferred areas of study:** Website Technologies and Artificial Intelligence
- **UPE Honors Society Member**

### Skills

#### ➤ Hardware/Embedded Platforms

- **Microcontroller:**  
Arduino, TMS 570
- **GPU/Microprocessor:**  
Raspberry Pi

#### ➤ Software Process Experience

- **Process Models:**  
Waterfall, Rapid Prototyping, Agile (Scrum, Extreme Programming, etc.)
- **Structural UML Diagrams:**  
Class, Component, Deployment
- **Behavioral UML Diagrams:**  
Activity, Sequence, Use Case, State-Transition, Communication
- **Industrial Exposure:**  
Scheduling/Tracking Performance Milestones, Understanding of Ordering Processes, Creation of Purchase Orders/Quotes

#### ➤ IDE Familiarity

Visual Studio 2017, Aptana, Eclipse, XAMPP, Atom, Visual Code

#### ➤ Automotive Specific

dSpace, CarSim, Matlab/Simulink, Vector CANape, Vehicle Network Toolbox, IPE motion

#### ➤ 3-D Modeling

Maya, Unity, OpenGL

#### ➤ Other Knowledge

- **Windows Office Enterprise:**  
Word, Excel, SharePoint, PowerPoint, etc.
- **Testing Processes for Industry Standards:**  
ISO 9000 and CMMI
- **Design and Architecture:**  
Modern Database Architecture, Software Design/Architectural Patterns

### Personal Info

**Email:** [ksbean@umich.edu](mailto:ksbean@umich.edu)

**Phone:** (248) 808-1437

**Graduation Date:** April, 2018

**Website:**

<https://ksbean.github.io/>

### Language Experience

C, C++, C#, Java, JavaScript, PHP, Python, Scheme, Prolog, Lisp, Visual Basic, Assembly, HTML5, XML, CSS3

### Key Skills

Website Design

Testing (HIL environment)

Customer Interaction

Technical Writing Experience

### Interests and Passion

Created and currently maintain personal website. Currently working on home automation using raspberry pi and AIY voice kit.

### Projects

- **Cornbread Hustle Android Application** - Application created in Android Studio for use with the Clientele of Cornbread Hustle. Application tracks progress of habits user is willing to either keep up or break down. Application has been used in prisons with the help of a program where inmates are allowed access to tablets and successfully improves the rehabilitation process.
- **HIL Bench Vital Monitoring Unit** - Software reads and processes input from CAN box and heat sensors to monitor both the temperature and current flow to the Electronic Control Unit. Hardware used to process this information from these devices was a raspberry pi and a touch screen display for user friendliness.
- **Validation Test Creation Application** - Application allows users to process an .MDF file and choose which signals they wish to display in a test case document. The application then takes the signals and their comments and auto generates a graph and comment section within a test report and is actively used as a validation tool for Autoliv-Nissin Brake Systems.