Alex van de Sandt

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EXPERIENCE

Honeywell, Atlanta, Georgia — *Software Engineer II*

AUGUST 2020 - PRESENT

TIGER Integrated System

- Achieved digital transformation by modernizing three legacy systems into a single Node.js-powered platform to streamline the process for service engineers to diagnose and report issues in Honeywell engines
- Unified disparate legacy databases into a single data model, improving resiliency and efficiency to improve accuracy of and simplify generation of contractually-required reports
- Mentored an intern, teaching them the backend development process and helping them learn SQL and TypeScript

Business Aviation Forge Dashboard

- Built microservices and frontend components to integrate 3rd-party and internal services into a single dashboard, unifying the customer experience and building the value of a flagship product
- Migrated React components from legacy systems to drive down technical debt

Honeywell, Atlanta, Georgia — *Software Engineering Intern*

MAY 2019 - August 2019

GoDirect Flight Planning Engine

- Built weather reporting and airport data microservices and integrated them with an interactive globe on the frontend
- Developed comprehensive, multi-layered map control menu in React
- Designed and implemented algorithm to split GeoJSON objects across the antimeridian

Clear Software, Zionsville, Indiana— *Software Intern*

MAY 2017 - August 2017

- Worked directly with clients to determine requirements for product customization
- Built a generic HTTP connector in Python to integrate product with existing enterprise systems
- Configured customer pages using Django templates
- Learned agile processes working with a small team

Programming Languages

Rust
TypeScript
SQL
Python

Skills & Technologies

Node.js, NestJS, React, Redux
Git
SQL Server
PostgreSQL
Linux/Unix Systems & Tools
AWS
Docker

EDUCATION

Purdue University, West Lafayette, IN— *B.S. Computer Science*

Class of Spring 2020

- Specialized in Systems Programming and Programming Languages
- Took classes covering Compilers, Databases, Programming Languages, and Cloud Computing
- Participated in the Purdue Cycling Club and the Purdue Symphony Orchestra (violin)

Purdue Formula SAE, Electronics Team Member

- Developed tools in Rust to interact with CAN Bus over wireless network via Raspberry Pi
- Assisted in construction of wiring harness for 2019 car

ACM Purdue SIGBots, Software Team Leader

- Led team of peers to design & implement control software for competition robot
- Helped development of the Purdue Robotics Operating System (PROS) 3.0

Projects

Simracing fuel calculator: https://fuel.avandesa.dev

Wack - data exfiltration via DNS-over-HTTPS: https://gitlab.com/avandesa/wack

Candid - relay CAN bus messages over a network: https://gitlab.com/avandesa/candid-rs

Split GeoJSON data across the antimeridian: https://gitlab.com/avandesa/geojson-antimeridian-cut