Scott Urnikis

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Education

- **Illinois State University** — Normal, IL
  Bachelor's Degree in Computational Physics (GPA: 4.0) — *August 2018 – May 2021*
- **Illinois Valley Community College** — Oglesby, IL
  Associate's Degree in Computer Science — *August 2015 – December 2017*

Experience

- **Volition** — Champaign, IL
  Associate Programmer II — *August 2022 - September 2023*
  - **Video Game Tools Programmer**:
    - Wrote a desktop configuration tool in Python for studio employees to work on multiple projects more easily.
    - Developed software in C++ and Python at the end of Saints Row development to improve in-house tools.
    - Supported users who found errors while using in-house tools and implemented improvements accordingly.
- **Amdocs, Inc.** — Champaign, IL
  Software Developer — *September 2021 - July 2022*
  - **Monitoring Software**:
    - Interpreted logs in Kibana and Splunk for understanding software behavior during production readiness tests.
    - Automated Operational tasks using Single Page Web Applications with Python and Selenium.
    - Presented during meeting for explaining flows for services in development to other team members.
    - Wrote suite of PromQL queries for interpreting time series in Prometheus database.
- **GROWMARK** — Bloomington, IL
  Innovation Intern — *May 2021 - August 2021*
  - **Full Stack Software Development with AWS, Node.js, and Vue.js**:
    - Implemented set of database functions for a PostgreSQL instance in AWS RDS.
    - Designed RESTful API using AWS API Gateway and AWS Lambdas for exposing the database functions.
    - Cooperated with other interns to develop a user interface in Vue.js.
    - Created developer tools for others to use when working with AWS products using the AWS SDK for Javascript.
- **Illinois State University** — Normal, IL
  Research Assistant — *January 2019 - May 2021*
  - **Biophysical Simulation of Neurons**: https://github.com/surniki/neuralnet
    - Supports quick exploration of the time evolution of neuronal networks.
    - Used to successfully discover new features in physical systems.
    - Built test suite for avoiding introducing errors while optimizing for time efficiency.
  - **Unit Checking Using C++ Templates**: https://github.com/surniki/unit-checking
    - Partial reimplementation of Walter E. Brown's *siunits* described in *Applied Template Metaprogramming in siunits: the library of unit-based computation (2001)*.
    - Demonstrated to catch errors while translating time derivatives of physical models into C++ functions.
    - Gave a talk on this topic at the Illinois State University Undergraduate Research Symposium in 2019.
- **Illinois State University** — Normal, IL
  Teaching Assistant — *June 2019 - May 2021*
  - **Physics for Scientists and Engineers III**:
    - Taught an introduction to programming in Mathematica to second year students.
    - Emphasized the connection between programming and evaluating expressions in physics.
    - Topics in programming style were discussed in relation to the programming tasks explored during the lab.
  - **College Physics I**:
    - Taught introductory mechanics and topics in temperature, waves, and sound.
    - Wrote a procedure for a lab session on harmonic oscillators and dimensional analysis.
    - Translated the lab manual into a LaTeX source file for easier maintenance.