

Benjamin F. Wilson

Bürgermeister-Schwiening Strasse 36, Aurich, Lower Saxony, DE
wilson.f.benjamin@gmail.com (*pref*) | 1-415-246-6278 | www.uphouseworks.com | github.com/montymxb

Summary

MS and BS graduate in Computer Science from Oregon State University, former Software Engineer at Axolsoft, U.S. citizen. Specializing in programming language theory, graphics, and AI. Passionate about building reliable and intuitive systems that help advance scientific understanding. Interested in applications related to compilers, data visualization, and programming language design.

Skills

- **Proficient:** Haskell, HTML5, CSS, Javascript, C, C++, PHP, Bash, RegEx, testing, parsers, DSLs, syntax & semantics
- **Familiar:** Lisp, Idris, compilers, Python, Typescript, Lua, GLSL, Java, MySQL, x86 Assembly, Obj-C, ML, CSPs, 802.11n
- **Technologies:** Linux/Unix OS, NGINX, AWS, OpenGL, React, Node.js, Git, Github, Windows, Android, iOS, \LaTeX

Experience

Research Assistant, Programming Languages Group, Oregon State University 2020 - 2021

- Worked under **Prof. Martin Erwig** to research program **classification and ordering systems** using scientific computation
- **Designed technique for classifying programs** into teachable partial-orderings via graphs, using syntactic categories
- **Co-wrote the func. language BoGL** in Haskell, with NGINX/React on AWS for **200+ students, nominated for IAB award**
- **Led development on the research group website** in Hugo, BoGL documentation/tutorials using Jekyll, and BoGL interpreters

Teaching Assistant, Oregon State University Sept. 2018 - June 2020

- **Taught Computer Science 160/162** courses using prior C/C++ exp. & Haskell, taught **algorithms, data structures, GDB**
- **Ran labs** for students, performed live code demos, held office hours, and **volunteered to run after-hours study sessions**
- **Worked with fellow TAs** through weekly meetings, labs, and online to provide the best educational experience for students

Core Contributor, Parse Community on Github Jan. 2017 - June 2018

- **Led open source Parse PHP SDK development & testing**, did **code reviews**, and worked on code written by others devs
- **Improved the SDK** through $\geq 90\%$ test coverage, adding style enforcement, Travis CI, and auto-generated documentation
- **Handled & fixed developer issues**, wrote **documentation**, and **helped new contributors** to make successful **pull requests**

Software Engineer, Axolsoft, Upland CA Jan. 2015 - Sept. 2017

- **Co-founded Axolsoft LLC** and built full-stack, front-end, and Android and iOS applications for private & government clients
- Built & managed **CMS, e-commerce, email marketing systems, and web hosting/management tools** in PHP/SQL
- **Contributed patches on Github** to the Braintree PHP and Parse PHP SDKs, both having been used at Axolsoft

Contract Web and Mobile Developer, Corvallis OR 2013 - 2017

- Used HTML5, PHP, Apache, and Braintree Payments for the **online portal and website** for Score Savers SAT Prep
- Engineered **Android & iOS** (Java & Obj-C) student testing apps for Score Savers with **SQLite, CoreData, MySQL and PHP**
- Built web portal with PHP to **manage student accounts, enrolled programs, and payments via the Braintree PHP SDK**

Relevant Personal Work 2014 - 2015

- **Implemented compiler & runtime** for a scripting language in ANSI C, lightweight & compact with single cross-platform src

Education

M.S. - Computer Science, Oregon State University (OSU), Corvallis OR, 3.91 GPA 2020 - 2021

- Studied **Programming Language Theory, Computer Graphics, AI, Operating Systems, Networking**

B.S. - Computer Science, OSU, Corvallis OR, *Cum Laude*, 3.59 GPA 2018 - 2020

Mechanical Engineering, OSU, Corvallis, OR 2011 - 2012