

WILL BADART

231 Keenan Hall, Notre Dame IN, 46556 | (425) 698-8518 | wbadart@nd.edu | wbadart.info

Fourth-year Notre Dame computer science major (concentration in cyber security) with background in web, systems, and application development. Experienced leader of small, cross-disciplinary teams. Fast, driven learner, ready to meet new challenges.

ACADEMIC

University of Notre Dame South Bend IN (grad. May 2018) *Major GPA 3.6/4* select coursework:

Computer Networks, Computer Security, Natural Language Processing, Cyber Case Studies, Algorithms, Computer Architecture

International School Bellevue WA (grad. June 2014) *GPA: 3.941/4, SAT: 2160, SAT II Math 2: 720, ACT: 34*

EMPLOYMENT

[linkedin.com/in/wbadart](https://www.linkedin.com/in/wbadart)

Software Engineering Intern Facebook, Menlo Park CA

May 2017 - Aug 2017

Created a "safe mode" feature for a graph ORM service in Facebook's Core Data organization. The feature, which enables users to test schema modifications in a local sandbox environment before publishing to production, will help prevent critical failures in a number of user-facing systems. *Skills: multi-lingual software engineering, systems design, Apache Thrift, code generation systems, advanced Python, C++, concurrent computing*

Strategic Innovation Developer Booz Allen Hamilton (BAH), Washington D.C.

Jun 2016 - May 2017

Led the development of BAH's Innovation Services (IS) Portal. Worked with a small team of consultants and developers to overhaul IS's metrics platform. The new portal houses a survey system of my construction and accompanying administration, analytics, and visualization features. *Skills: MEAN web development, data-driven systems, visualization, UX, OWASP, agile methodology, system administration, modern JavaScript*

Lead Developer ND Kaneb Center for Teaching and Learning, South Bend IN

Oct 2014 - present

Works collaboratively with small team to create websites and produce and distribute media for the Notre Dame Kaneb Center. Materials focus on the educational value of digital media and on how to apply it in academia. *Skills: continuous integration, Linux server management, project management, web development, video & image production, small-team leadership*

PROJECTS

github.com/wbadart

Pen

Aug 2017

An exploratory project in deep learning. Trained on a variant of the MNIST database, Pen classifies handwritten symbols, identifying the characters they represent. In the next phase, I will enable users to test the model against their own handwriting through a canvas. *Skills: deep learning, neural networks, scikitlearn, numpy, tensorflow, Flask*

HackTerror

Jul 2016

My team's project at BAH's 2016 internal counter-terrorism (CT) hackathon. The product we prototyped is an extensible tool for CT agents to cross-reference terrorism data and arbitrary outside datasets in order to forecast terror events and enact preventative measures left of boom. *Skills: data aggregation & pipelining, rapid prototyping, Python, small-team app development*

Verilog Microprocessor

Apr 2016

Planned and designed a microprocessor at the gate level. The system, using USB keyboard input and VGA output, implemented a game similar to Snake. All components were thoroughly tested with individual test benches. The project ran on a Cyclone V FPGA. *Skills: hardware description, RTL simulation, datapath & logic design, state machine design*

Oracle – Study Edition

Apr 2016

A text-based networking puzzle I wrote at the socket level. Running on my AWS VPC, Oracle challenged users to "break into" its network and decrypt the messages found. *Skills: Python network programming, network mapping, concurrency, server management*

ACCOMPLISHMENTS

- Self-taught Python, JavaScript, TypeScript, PHP, SQL, Apache Thrift, Angular (1 & 2), React, Webpack, Gulp, Elm
- Adept in Unix environments/ shell programming, Git, Hg, C, C++, Scheme, MATLAB, Verilog, MIPS Assembly, Adobe programs
- Avid volunteer: created & taught a web development course for business students (spring 2017); instructor for Street Code Academy, a non-profit which sponsors technology & entrepreneurship education for kids (summer 2017)
- Fluent in German; studied for 7 years, culminating in month-long exchange trip (2014); beginner in Russian
- BAH Summer Intern Games Finalist (2016), BAH Incubator Contest Finalist (2016), ePortfolio Excellence Award (2016), OIT CIO Innovation Award (2015), Remix Multimedia Award (2015), AP Scholar w/ Distinction (2014), National Merit Commended Student (2013), Bellevue Community Leadership Norm Maleng Award (2013)
- Experienced woodwind musician, member of Notre Dame Jazz 1 band

Please see my website, wbadart.info, for more details.