David Hahn

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EDUCATION

University of California, Berkeley – College of Engineering
  B.S. Electrical Engineering and Computer Science, 2017

EMPLOYMENT

Microsoft – Redmond, WA   Summer 2017 - Present
  Backend Software Engineer II for Azure Active Directory MSODS Team
  - Built features for distributed data sync services between on-premise, cloud, & partner directory data stores
  - Designed, implemented federated sync feature to enable syncing of entire data store to Office 365 Substrate
  - Implemented on-premise sync feature to block soft-match and enable quarantining of cloud admin identities
  - Extended back-end to support renaming previously immutable initial domain granted to customers on sign-up
  - Developed infrastructure to report company deletions to partner teams for GDPR compliance
  - Participated in on-call engineer rotation and drove improvements for the health of the service
  - Engineered with C#, .NET, ADLDS

Apple Inc. – Cupertino, CA   Summer 2016
  Full Stack Software Development Intern for Human Engineering Team
  - Created web application capable of dynamically displaying user data on both mobile and desktop platforms
  - Extended existing front-end libraries to create new UI interactions and built back-end to save user preferences
  - Improved UI, restructured back-end models, and further developed API's to enhance UX of existing tools
  - Engineered with Django, Javascript, jQuery, HTML, Postgres

ServiceNow – San Francisco, CA   Summer, Fall 2015
  Full Stack Software Development Intern for PaaS Team
  - Improved SW-upgrade monitor to provide metrics detailing progress, record changes, and node availability
  - Integrated new visual features on front-end monitor page with existing back-end architecture
  - Refactored unstable J-Unit tests and faulty usages of internal I18N library
  - Engineered with Java, AngularJS, HTML, MySQL

Aerospace Corporation – El Segundo, CA   Summer 2014, Winter 2014 - 2015
  Satellite Development Intern for AFSCN Expansion Project
  - Developed a CubeSat prototype to interface with Aerospace satellite control network software
  - Constructed webpage GUI to process user commands and display graphical sensor data in real-time
  - Implemented back-end architecture to handle satellite control and store temperature, solar, and GPS data
  - Engineered with C, Java, Python, MySQL, HTML, and JavaScript/JQuery

PROJECTS [**https://ddavidhahn.github.io/**]

Flocking Simulation (CS184) – C++   Spring 2017
  - Implemented visually organic flocking simulation based on paper by Craig Reynolds
  - Developed features to influence unit behavior including obstacles, mouse interactions, and predator units
  - Tuned flock unit behavior to emulate fish and predator unit behavior to emulate sharks
  - Repurposed previous project code to create responsive UI for unit tracking and analysis and user interactions

Computational Photography Project Series (CS194-26) – Python, Numpy   Fall 2016
  - Implemented a panorama generator capable of automatically stitching together three projective images
  - Generated hybrid frequency images and blended images together using Gaussian and Laplacian stacks
  - Emulated tilt-shift lens effect programmatically, making the image subjects appear miniature
  - Wrote face morphing procedure via affine transforms on Delaunay triangulations
  - Implemented alignment algorithm to coalesce separate B&W images for R, G, & B channels into color image

SKILLS AND INTERESTS

Proficient with Python, C++, C#, Java   Interests in photography, volleyball